

SEQUENCE LISTING

<110> LEVINE, et al.

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<210> 12
<211> 750
<212> DNA
<213> Homo sapiens

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<223> "n" can be any nucleotide 'a', 'c' , 'g' or 't'

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<210> 13
<211> 794
<212> DNA
<213> Homo sapiens

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 <212> DNA
 <213> Homo sapiens

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ctctgttttc ttctttccaa aactgtgcac ccctggatga aacctccatc aaggagagacc	180
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tggactcaga agaaggggat ggagcctggg gccctgagat tccagtggaa cctgatgacc	600
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aggggcgcca tgcaggaggt catggcatcg agtttgcccc catgtacaag atcaattaca	720
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acggctgtgt ctggctagat ggcttgggtg cttacaatgc tccagctggg cagcagtttg	960
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<210> 15
<211> 1215
<212> DNA
<213> Homo sapiens

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ttccaattct gcaaggcttt taaaattcac cttacatctt ttcaaagcaa gaaaatggaa 180
cagcatgtgt aggaattctt cgttgttggt ttggagccct ctcttaagtc agaactctgt 240
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ctttcaggag cacctgagct gctcctcttc tccacactta cccttcagtg aaagcaaaac 360
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cgaggaccag	caggaaaagg	ggatggtacg	aacagagcta	atcgagagcg	tgcacagccc	480
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<210> 16
<211> 1327
<212> DNA
<213> Homo sapiens
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 <211> 364
 <212> DNA
 <213> Homo sapiens

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ccctgatecc tcagcgttca tgcagcctct tgtccacgga ggctgggtgcc ctgcatgtgc	180
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aaac	364

<210> 18
 <211> 923
 <212> DNA
 <213> Homo sapiens

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<210> 19

<211> 1739

<212> DNA

<213> Homo sapiens

<220>

<221> -

<222> (1)..(1739)

<223> "n" can be any nucleotide 'a', 'c' , 'g' or 't'

<400> 19

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actctgaggt gtccagacag gtgcggatca aggcttccca gtccgcaggg gatataaata	540
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tctttccttc tgctctccct gttagctccc aagtgcccc catcaaacct gggcgccc	1739

<210> 20

<211> 1832

<212> DNA

<213> Homo sapiens

<220>

<221> -

<222> (1)..(1832)

<223> "n" can be any nucleotide 'a', 'c' , 'g' or 't'

<400> 20

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ccaccgccgc	cgccatcgcc	accatggacg	aacaggaggc	attgaactca	atcatgaacg	120
atctggtggc	cctccagatg	aaccgacgtc	accggatgcc	tggatatgag	accatgaaga	180
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1832

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<212> DNA

<213> Homo sapiens

<400> 21

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ycccccaaa 1269

<210> 22

<211> 623

<212> DNA
 <213> Homo sapiens
 <220>
 <221> -
 <222> (1)..(623)
 <223> "n" can be any nucleotide 'a', 'c' , 'g' or 't'

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 cccccacagc accccgggct ggcgtgaggg tctcccttga tctgagaatg gctacctctc 240
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<210> 23
 <211> 502
 <212> DNA
 <213> Homo sapiens

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 aagtcgacgc ggccgcgaat tc 502

<210> 24
<211> 1148
<212> DNA
<213> Homo sapiens

<220>
<221> -
<222> (1)..(1148)
<223> "n" can be any nucleotide 'a', 'c' , 'g' or 't'

<400> 24
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cctgggaaga ctcttttctg ctccccaaaa cccaaggcc tggetcgggg ccactggagc 180

cgcaggcggg acatatgtgt gaccggccct ctgccctgg cagccccgcg ctgtgtactg 240

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gatgatagaa acagaatgct ttaaggagct gaacgtgttt ggacctaata gtaccctccc 420

gccagatctg aacagaaacc accctccgga accgcccgaag aaagggtgct tccagagact 480

cttcaagcgg cagcatcaga acaattccaa gagttcgccc agtccaaga ccagttttta 540

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ttaagccatg tgttccaagg catttttagcg gggagggggg tatcaaaaaa aaaaaaatgt 1080

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<210> 25
<211> 1679
<212> DNA

<213> Homo sapiens

<220>

<221> -

<222> (1)..(1679)

<223> "n" can be any nucleotide 'a', 'c' , 'g' or 't'

<400> 25

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ataaacacca aatagtacca aaaa	1224

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 <211> 1424
 <212> DNA
 <213> Homo sapiens

<400> 28

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aggtaggggt ggaggaggca aatgatatgg tggaacaagg accttgaaat caatccaaaa	180
cccaggtttt cctaggaagg ccacccggaa cccatggtaa gccaaactgt gcgcagggat	240

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2027

<210> 30

<211> 1609

<212> DNA

<213> Homo sapiens

<400> 30

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cccgcccgcc gcccggcggc gagagtagag gcgaggttgt tgtgcgagcg gcgcgtctc 180
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aaccaccagt	tatgtgctcg	ttaatgaaaa	cattttttta	aacagactaa	ccttgcggtt	1920
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<210> 32
 <211> 2590
 <212> DNA
 <213> Homo sapiens

<400> 32	
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cccgttacg	tatggaaagt gtctttgtct ctctggagc tgcacaagag gaggaaagcc 180
ctgactgagc	ctgaggcccc atactaccta eggcaaattg tgcttggtg ccagtacctg 240
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<210> 34
<211> 940
<212> DNA
<213> Homo sapiens

<400> 34
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<210> 35
<211> 951
<212> DNA
<213> Homo sapiens

<220>
<221> -
<222> (1)..(951)
<223> "n" can be any nucleotide 'a', 'c' , 'g' or 't'

<400> 35

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agtgaggaga gccccattg gaccagtgtt tgcttagtgt cttcactgta ttttctttaa      900
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<210> 36
<211> 2063
<212> DNA
<213> Homo sapiens

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<220>
<221> -
<222> (1)..(2063)
<223> "n" can be any nucleotide 'a', 'c' , 'g' or 't'

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<210> 37
<211> 1393
<212> DNA
<213> Homo sapiens

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<213> Homo sapiens

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<212> DNA
<213> Homo sapiens

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<211> 3507

<212> DNA

<213> Homo sapiens

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<211> 3138

<212> DNA

<213> Homo sapiens

<400> 44

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 <211> 2100
 <212> DNA
 <213> Homo sapiens

<220>
 <221> -
 <222> (1) .. (2100)

<223> "n" can be any nucleotide 'a', 'c' , 'g' or 't'

<400> 45

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<210> 46
<211> 1479
<212> DNA
<213> Homo sapiens
<220>
<221> -
<222> (1)..(1479)
<223> "n" can be any nucleotide 'a', 'c' , 'g' or 't'

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<210> 47
 <211> 1223
 <212> DNA
 <213> Homo sapiens

<400> 47	
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<210> 49
 <211> 930
 <212> DNA
 <213> Homo sapiens

<400> 49
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<210> 50
 <211> 2616
 <212> DNA
 <213> Homo sapiens

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<211> 1262

<212> DNA

<213> Homo sapiens

<400> 52

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<210> 54
 <211> 1464
 <212> DNA
 <213> Homo sapiens

<220>
 <221> -

<222> (1)..(1464)

<223> "n" can be any nucleotide 'a', 'c' , 'g' or 't'

<400> 54

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aaggagggtg	ctgagaacct	gcggcggggc	accactgacc	tgggcgcgag	cctgggcccc	300
gtagagctgc	tgctgcgggg	ctcctcgcgc	cgctcgcacc	tgctgcacca	gcagctgcag	360
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<210> 55

<211> 1080
<212> DNA
<213> Homo sapiens

<220>
<221> -
<222> (1)..(1080)
<223> "n" can be any nucleotide 'a', 'c' , 'g' or 't'

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<211> 1665
<212> DNA
<213> Homo sapiens

<400> 56
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<210> 57
 <211> 2081
 <212> DNA

<213> Homo sapiens

<400> 57

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 <211> 2195
 <212> DNA
 <213> Homo sapiens

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<210> 61
 <211> 1662
 <212> DNA
 <213> Homo sapiens

<400> 61	
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aagccatgga aggaaagggt ccaagtggtc aggcgagagc ctccagggca aaggccttgg	180
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gacctagagg cacacgtccg gcagttgcag gagcggatgg agttgctgca ggcagaggga	300

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tgtggcccag	ctgtgccacc	gagcgtcgag	aagagggggc	tgggctggca	gcgcgcgcgg	1620
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<210> 62
 <211> 1149
 <212> DNA
 <213> Homo sapiens

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cttaaaata 1149

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<210> 63

<211> 1461

<212> DNA

<213> Homo sapiens

<220>

<221> -

<222> (1)..(1461)

<223> "n" can be any nucleotide 'a', 'c' , 'g' or 't'

<400> 63

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```
tccagtccag cgtggtgtta tgttctgcc catccccatc aatggtgagg acccagactg 180
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agtccagcac gcccctggc attcctggtg gcagcaggca gggccccgcc atggacggca 240
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ctgcagccga	gcctcggccc	ggcgccggct	ccctgcagca	tgcccagcct	ccgccgcagc	300
ctcggaagaa	gcggcctgag	gacttcaagt	ttgggaaaat	ccttggggaa	ggctcttttt	360
ccacggttgt	cctggctcga	gaactggcaa	cctccagaga	atatgcgatt	aaaattctgg	420
agaagcgaca	tatcataaaa	gagaacaagg	tcccctatgt	aaccagagag	cgggatgtca	480
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tcggttcatt	cgatgagacc	tgtacccgat	tttacacggc	tgagattgtg	tctgctttag	660
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gaggggtgct	ttcttccac	gggcggggag	tgggggtgct	cttcttcacg	cgggtggggg	1380
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gcacagntgc	gctcgattct	c				1461

<210> 64

<211> 765

<212> DNA

<213> Homo sapiens

<400> 64

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ttctccaagt	tgggggctca	gaggggagtc	atcatgagcg	atgttaccat	tgtgaaagaa	180
gggtgggttc	agaagagggg	agaatatata	aaaaactgga	ggccaagata	cttccttttg	240

aagacagatg	gctcattcat	aggatataaa	gagaaacctc	aagatgtgga	tttaccttat	300
ccccccaaca	actttttcagt	ggcaagtagt	gttatgtttca	gatattttgca	gaattttaacc	360
ttaaaccaag	tttagaattg	ggaatggaga	aaacctttgt	aaaaattatt	ttaaaatgag	420
atcattttta	agaaaactat	aatgtaacaa	tgtcacatat	ttcctttcttc	aggctccaat	480
tcaaatcata	ctccaatttg	aaaagaacaa	aaattccaca	aaacgttcat	tcttttcctac	540
tttttcctta	cgttgtacaa	caaatgtgga	aagaaaaaaaa	aaacagaaaa	agtgtatccc	600
atcttaatga	aaatgactgc	ggcagtcaag	agtttcaa	at	ccagctgcc	660
caaccctctg	catctctgaa	agatttcatc	agtgttatct	cctttataat	cataactttt	720
catgtgtatc	atctgagttt	cttatttaa	aatctcacta	taaaa		765

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<210> 65
<211> 968
<212> DNA
<213> Homo sapiens

<220>
<221> -
<222> (1)..(968)
<223> "n" can be any nucleotide 'a', 'c' , 'g' or 't'
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ggttggttc	agaagagggg	agaatatata	aaaaactgga	ggccaagata	cttccttttg		240
aagacagatg	gctcattcat	aggatataaa	gagaaacctc	aagatgtgga	tttaccttat		300
cccctcaaca	acttttcagt	ggcaaaatgc	cagttaatga	aaacagaacg	accaaagcca		360
aacacattta	taatcagatg	tctccagtgg	actactgtta	tagagagaaac	atttcatgta		420
gatactccag	aggaaaggga	agaatggaca	gaagctatcc	aggctgtagc	agacagactg		480
cagaggcaag	aagaggagag	aatgaattgt	agtccaactt	cacaaattga	taatatagga		540
gaggaagaga	tggatgcctc	tacaacccat	cataaaagaa	agacaatgaa	tgattttgac		600
tatttgaaac	tactaggtaa	aggcactttt	gggaaagtta	ttttggttcg	agagaaggca		660
agtggaaaat	actatgctat	gaagattctg	aagaaagaag	tcattattgc	aaaggtaact		720
gattttattaa	agttgattac	taaatttttg	tttgacagtgt	gcatgtgttt	gtgggctcat		780

gaatttacat gctaattgat gcaaattcca ttaaacaacc naaatatggt tgnagactac	840
tgctacagta attttttgtgt attaatattt gtaatttttta aagttttcag acattcataa	900
tatttgata ttatatata aagctattct cttaaggaaa tagaaatggt tatgtttgca	960
tgtttggg	968

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<210> 66
<211> 2410
<212> DNA
<213> Homo sapiens
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gagtgtctcag	tgtccactga	gagtacacta	tctatcatca	caatatggtg	atgagaggtg		240
ttttatgttt	gtgttaattt	ccccactaa	atcagtaatt	attacaatcc	tgtccctgct		300
gtttaccctg	cagctgtttt	tccatttgtc	gagagagcgg	gtgttctctg	aggaccgcac		360
acgtttctat	ggtgcagaaa	ttgtctctgc	cttggactat	ctacattccg	gaaagattgt		420
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acctgaaaaa	tatgatgagg	atggtatgga	ctgcatggac	aatgagaggc	ggccgcattt		1020
ccctcaattt	tcctactctg	caagtggacg	agaataagtc	tctttcatto	tgctacttca		1080
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<210> 67
 <211> 798
 <212> DNA
 <213> Homo sapiens

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cctcatcaaa gggaaaaggt gtgtatgact cttgagtaaa gtattttctt tgtgtgcaag 720
gatggccctt ccctgttagg aaaatgtctt ctgcatgtgt aatcactggc tttccgagg 780
tgactggaag ctaataag 798

<210> 68
<211> 877
<212> DNA
<213> Homo sapiens

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<210> 69
<211> 1349
<212> DNA
<213> Homo sapiens

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cctcatcaaa gggaaaagat tgacaaagaa atagagcttc acagaattct tcatcataag 720
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gcaataaaga gtatgaaaac gcagaaaaa 1349

<210> 70
<211> 538
<212> DNA
<213> Homo sapiens

<220>
 <221> -
 <222> (1)..(538)
 <223> "n" can be any nucleotide 'a', 'c' , 'g' or 't'

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 ggatgactga gacattatgg gccacgcgct gtgtgtctgc tctcggggaa ctgtcatcat 180
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<210> 71
 <211> 3308
 <212> DNA
 <213> Homo sapiens

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1396

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<212> DNA

<213> Homo sapiens

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tttgtttcag ctcagcaaaa cagtccctca tctacgggat ctggcaacac agagcattcc	600
tgcagctccc aaaaacagat ctccatccag cacagacaga cccagtccaa cctcacaata	660

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<210> 81

<211> 2608

<212> DNA

<213> Homo sapiens

<400> 81

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tacagcccgg gcaattcagt ttctacatca ggacagcccc agcctcatcc atggagacat	180
caagagtcc aacgtccttc tggatgagag gctgacaccc aagctgggag actttggcct	240
ggcccgggtc agccgctttg ccgggtccag cccagccag agcagcatgg tggcccggac	300

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tgcagatgcc	tggtctgctc	ccatcgccat	gcagatctac	aagaagcacc	tggaccccag	600
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gtccaaaagt agcccagggc tgtagcacag gcttcacagt gattttgtgt tcagccgtga	2520
gtcacactac atgccccgt gaagctgggc attggtgacg tccaggttgt ccttgagtaa	2580
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<210> 82

<211> 1237

<212> DNA

<213> Homo sapiens

<400> 82

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cgcccagcac ttcttgtagc aggtgcccgc ctgggtcatg tgccgcttct acaaagtgat	180
ggacgccttg gagccgcgcg actggtgcca gttcgccgcc ctgatcgtgc gcgaccagac	240
cgagctgcgg ctgtgcgagc gctccgggca gcgcacggcc agcgtcctgt ggccctggat	300
caaccgcaac gcccggtgtg ccgacctcgt gcacatcctc acgcacctgc agctgctccg	360
tgcgcgggac atcatcacag cctggcacc cccgccccg cttccgtccc caggcaccac	420
tgccccgagg cccagcagca tccctgcacc cgcgaggcc gaggcctgga gcccccgaa	480
gttgccatcc tcagcctcca ccttctctc cccagctttt ccaggctccc agaccattc	540
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ctcttgctg tccaaaagta gcccagggct gtagcacagg cttcacagtg attttgtgtt	1140
cagccgtgag tcacactaca tgccccctg aagctgggca ttggtgacgt ccaggttgtc	1200
cttgagtaat aaaaacgtat gttgcaatct cgggaaa	1237

<210> 83
 <211> 1286
 <212> DNA
 <213> Homo sapiens

<220>
 <221> -
 <222> (1)..(1286)
 <223> "n" can be any nucleotide 'a', 'c' , 'g' or 't'

<400> 83	
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tgcttttagac catctacata gcctgggaat aatttataga gacttaaaac cagaaaatat	180
acttcttgat gaagaaggct acatcaagtt aacagatttc ggctaagta aagagtctat	240
tgaccatgaa aagaaggcat attctttttg tggaactgtg gagtatatgg ctccagaagt	300
agttaatcgt cgaggtcata ctacagagtgc tgactgggtg tcttttggtg tgtaaatgtt	360
tgaaatgctt actggtacac tccctttcca aggaaaagat cgaaaagaaa caatgactat	420
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gcagacagtt ggtgtacatt caattgttca gcagttacac aggaacagta ttcagtttac	840
tgatggatat gaagtaaaag aagatattgg agttggctcc tactctgttt gcaagagatg	900

tatacataaa gctacaaaca tggagtttgc agtgaaggta aatTTTTTTTT atttaaaatg	960
caattcatac agttcttggt catgcatgtc agtaccagtt aaaaattaca ctccccctgt	1020
tgttaaaagt gccttttggt ataaaaaagt taaatatctg gctagtgatc ttcagagatc	1080
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atcttttttac tctgagaagt ccccatTTTA tgctcanggt gtcagcaaat tcctcaaaat	1260
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<210> 84

<211> 752

<212> DNA

<213> Homo sapiens

<220>

<221> -

<222> (1)..(752)

<223> "n" can be any nucleotide 'a', 'c' , 'g' or 't'

<400> 84

atgccgctgg cgcagctggc ggacccgtgg cagaagatgg ctgtggagag cccgtccgac	60
agcgctgaga atggacagca aattatggat gaacctatgg gagaggagga gattaacca	120
caaaactgaag aagtcagtat caaagaaatt gcaatcacac atcatgtaaa ggaaggacat	180
gaaaaggcag atccttccca gtttgaactt ttaaaagtat tagggcaggg atcatttgga	240
aaggttttct tagttaaaaa aatctcaggc tctgatgcta ggcagcttta tgccatgaag	300
gtattgaaga aggccacact gaaagttcga gaccgagttc ggacaaaaat ggaacgtgat	360
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ttagaccatc tacatagcct ggaataatt tatagagact taaaaccaga aaagtaagga	600
atcatgctac taagttgaat acaatgtaat atgattgttt aggagattat aaaaaatcaa	660
gtggcttcat gaaactocca cagtaatgtg tagcgtgcct gtgcttcaca tctctgctaa	720
cactgtagtt tcatacttta aatnactcag tt	752

<210> 85

<211> 1826

<212> DNA

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atttctacat ggaaatcaag aaactcggac ccaacttggt gcaaagacgg atctccgccg 1800
attctgacgg ctctccaggt tttgtc 1826

<210> 86
<211> 476
<212> DNA
<213> Homo sapiens

<400> 86
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agatgcagag cacttctaata catctgtggc ttttatctga tatttttaggc caaggagcta 120
ctgcaaagtgt ctttcgtgga agacataagt ggatgttcaa atgagagaat ttgaagtgtt 180
gaaaaaactc aatcacaaaa atattgtcaa attatttgct attgaagagg agacaacaac 240
aagacataaa gtacttatta tggaattttg tccatgtggg agtttataca ctgttttaga 300
agaaccttct aatgcctatg gactaccaga atctgaattc ttaattgttt tgcgagatgt 360
ggtaggtgga atgaatcatc tacgagagaa tggtagatgt caccgtgata tcaagccagg 420
aaatatcatg cgtgcactat accattctct cgtagatgat tcattccacc caccac 476

<210> 87
<211> 2131
<212> DNA
<213> Homo sapiens

<220>
<221> -
<222> (1)..(2131)
<223> "n" can be any nucleotide 'a', 'c' , 'g' or 't'

<400> 87
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gatgccaaact tatgtcaagt gattcagatg gaattagacc atgagcgaat gtcttacctg	480
ctgtacccaaa tgttgtgtgg cattaagcac ctccattctg ctggaattat tcacagggat	540
ttaaaaccaa gtaacattgt agtcaagtct gattgcacat tgaaaatcct ggactttgga	600
ctggccagga cagcaggcac aagcttcacg atgactccat atgtggtgac acgttattac	660
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ggatgcatta tgggagaaat ggttcgccac aaaatcctct ttccaggaag ggactatatt	780
gaccagtgga ataaggtaat tgaacaacta ggaacaccat gtccagaatt catgaagaaa	840
ttgcaacca cagtaagaaa ctatgtggag aatcggccca agtatgcggg actcaccttc	900
cccaaactct tcccagattc cctcttccca gcggactccg agcacaataa actcaaagcc	960
agccaagcca gggacttggt gtcaaagatg ctagtgattg acccagcaaa aagaatatca	1020
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gcgcctccac ctccagatata tgacaagcag ttggatgaaa gagaacacac aattgaagaa	1140
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catttcatgt gatctattac tctgacataa acccatctgt aatatattgc cagtatataa	1980
gctgtttagt ttgttaattg attaaactgt atgtcttata agaaaacatg taaaggggga	2040
atatatgggg ggagtgagct ctctcagacc cttgaagatg tagcttccaa atttgaatgg	2100

attaaatggc acctgtatac caatttgtag a

2131

<210> 88

<211> 989

<212> DNA

<213> Homo sapiens

<400> 88

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aacagcaggc ccatctcaga tcttcactat ggcaacttat gcaagaaact gttgaattag 180
accggtttcc tatagatgag aaaccataca agctgtggta tttatgagcc tccatttctt 240
atactactgc agtgaaccaa cattggatgt gaaaattgcc ttttgtcagg gattcgataa 300
acaagtggat gtgtcatata ttgccaaaca ttacaacatg agcaaaaagca aagttgacaa 360
ccagttctac agtgtggaag tgggagactc aaccttcaca gttctcaagc gctaccagaa 420
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caatatgcta cattcgattt cattgtcctc atggtagctt tctgcttaaa aatcacctaa 780
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atatttggtt atcttgctcc aaattgagag cttcaagaaa gaaacaagac aaacaaagcc 900
caaagccaga aaaaaaaaaa aacctacaaa gcaccatgct acatttcttt ataatttaga 960
tttaatttag aatttattaa tttaaaatt 989

<210> 89

<211> 1818

<212> DNA

<213> Homo sapiens

<400> 89

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ctccagcctg ggcaacaaga gcgaaactcc atctcaaaaa gaaaaaaaaa gatatatatg 180
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tatgcagcca caggtcttta ttttcttact taagtgcctc caacttccca taacacaaat	300
taaggcatga tgaacatcct ctctgtgctg aacatcctgt gtatgtcact tcagaagcct	360
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gaccaaagtg acactggaga atttttatag caaccttatc gctcaacatg aagaacgaga	720
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tgtgattggg ggctgcttgg ggtgatcatg tatgagatgc tcatcggtta gttgcatggg	1560
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caattggcag tgatctaagt gatttcccta cttgtctttc aaagtgaatt gttttagaca	1680
gatgacacct ctttcagtaa gatgtatccc actccattct tgggcttact ggcacacctg	1740
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<211> 2732
<212> DNA
<213> Homo sapiens

<220>

<221> -

<222> (1)..(2732)

<223> "n" can be any nucleotide 'a', 'c' , 'g' or 't'

<400> 90

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tagcaacaat tcttaaagag gttttggaag gcttagacta tctacacaga aacggtcaga	180
ttcacaggga tttgaaagct ggtaatatc ttctgggtga ggatgggttca gtacaaatag	240
cagattttgg ggtaagtgcg ttcttagcaa caggggggtga tggtaccga aataaagtaa	300
gaaaaacatt cgttggcacc ccatgttga tggctcctga agtcatggaa caggtgagag	360
gctatgactt caaggctgac atgtggagtt ttggaataac tgccattgaa ttagcaacag	420
gagcagcgcc ttatcacaaa tctctccca tgaaagtgtt aatgttgact ttgcaaaatg	480
atccaccac tttggaaaca ggggtagagg ataaagaaat gatgaaaaag tacggcaagt	540
cctttagaaa attactttca ctgtgtcttc agaaagatcc ttccaaaagg cccacagcag	600
cagaactttt aaaatgcaaa ttcttccaga aagccaagaa cagagagtac ctgattgaga	660
agctgcttac aagaacacca gacatagccc aaagagccaa aaaggtaaga agagttcctg	720
ggccaagtgg tcaccttcat aaaaccgaag acggggactg ggagtggagt gacgacgaga	780
tggatgagaa gagcgaagaa gggaaagcag ctttttctca ggaaaagtca cgaagagtaa	840
aagaagaaaa tccagagatt gcagtgagtg ccagcaccat cccgaacaa atacagtccc	900
tctctgtgca cgactctcag ggcccaccca atgctaata agactacaga gaagcttctt	960
cttgtgccgt gaacctcgtt ttgagattaa gaaactccag aaaggaactt aatgacatac	1020
gatttgagtt tactccagga agagatacag cagatgggtg atctcaggag ctcttctctg	1080
ctggcttggt ggatggtcac gatgtagtta tagtggctgc taatttacag aagattgtag	1140
atgatcccaa agctttaaaa acattgacat ttaagttggc ttctggctgt gatgggtcgg	1200
agattcctga tgaagtgaag ctgattgggt ttgctcagtt gagtgtcagc tgatgtatgt	1260
cccttgatgt cacctgate tgtcatgcc caccgccacc cctactcct tcaacctcc	1320
ctctttctgc ccatttctc ccacccctc actccattt cctagcaaaa tcagaagatt	1380

gtgaagaggc cggcttcaac aaaatgggat aaaaaataa ttttttaaaa cttacaacac	1440
tccgagttct gctttattct ctagcaatcc acagtacaag aacaagcaaa tgccacagct	1500
gcacgactgt tgctcatttt tccaaaagct atttaatat cttagcaatc aatttggata	1560
tcccttaagt gaaaagaatc tgaaatacac tcaggtgggc ttattttattg gcaacaaaag	1620
gaattttcta tccagaagcc tattttctct ttcattgttg ttattttctgt tataatactt	1680
taattgtaca tctgacaata ctgcctcttt tatgttgat tttagaaatta atatacttat	1740
aaaattaaga tttattagcc aaacttgaat tctagtttta aaactgactg tgaattttat	1800
ttttcatata tttatgcatt acacacctta gctataagaa aaaaaggggt ttgattatat	1860
gcttcttgca gttaatctcg ttatttaaac aaaaagtttt gggctctgtct ttggagtatt	1920
tgtaacttct aaattttgaa atgactgaat taggaatttg gatgcttatt ctttttagtct	1980
gtttgcctaa aaaccaatth acaatctgac tgtctcttgg gagagggagg tgccttgcaa	2040
actttcacat taagaatgtg cctgaggctg ctttactctg gaatagtctc agatctaaaa	2100
tttcctctat ataaggtggc atatgttaag ttttgcttca ttggaccgtt tagaatgcta	2160
tgtaaaatgt tgccattctg ttagattgct aactatatac ccattctctga tttggctctc	2220
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<210> 91
 <211> 1416
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1)..(1416)
 <223> "n" may be any nucleotide 'a', 'c', 'g' or 't'

<400> 91
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tagcaacaat tcttaaagag gttttggaag gcttagacta tctacacaga aacggtcaga 180
ttcacaggga tttgaaagct ggtaatatc ttctgggtga ggatgggttca gtacaaatag 240
cagattttgg ggtaagtgcg ttcctagcaa caggggggtga tgttaccga aataaagtaa 300
gaaaaacatt cgttggcacc ccatgttgga tggctcctga agtcatggaa caggtgagag 360
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gagcagcgcc ttatcacaaa taccctcca tgaaagtgtt aatgttgact ttgcaaaatg 480
atccaccac tttggaaaca ggggtagagg ataaagaaat gatgaaaaag tacggcaagt 540
cctttagaaa attactttca ctgtgtcttc agaaagatcc ttccaaaagg cccacagcag 600
cagaactttt aaaatgcaaa ttcttccaga aagccaagaa cagagagtac ctgattgaga 660
agctgcttac aagaacacca gacatagccc aaagagccaa aaaggtaaga agagttcctg 720
ggtaagtgg tcaccttcat aaaaccgaag acggggactg ggagtggagt gacgacgaga 780
tggatgagaa gagcgaagaa gggaaagcag ctttttctca ggaaaagtca cgaagagtaa 840
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tctctgtgca cgactctcag ggcccacca atgctaata agactacaga gaagcttctt 960
cttgtgccgt gaacctcgtt ttgagattaa gaaactccag aaaggaactt aatgacatac 1020
gatttgagtt tactccagga agagatacag cagatgggtg atctcaggag ctcttctctg 1080
ctggcttggg ggatggtcac gatgtagtta tagtggctgc taatttacag aagattgtag 1140
atgatcccaa agctttaaaa acattgacat ttaagttgaa tcaatttttg catttggaag 1200
catttgactc tgcagcgtta gggaaacgtt tctgattgtg actggaagtg tcctcttcta 1260
tgagcatagc tttttcttat cgtcacacct ttgactaaga gcggccatat aagaatcttg 1320
aagcctagat ctttttgcct gcagtttgta ttgcaacttg accataaaga caaaattaca 1380
ctgaattcaa agcaacactc ttaataaagc tttcct 1416

<210> 92
<211> 434
<212> PRT
<213> Homosapiens

<400> 92

Met Pro Ala Arg Arg Leu Leu Leu Leu Leu Thr Leu Leu Leu Pro Gly
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 20 25 30
 Leu Phe Val Ser Thr Leu Asp Gly Ser Leu His Ala Val Ser Lys Arg
 35 40 45
 Thr Gly Ser Ile Lys Trp Thr Leu Lys Glu Asp Pro Val Leu Gln Val
 50 55 60
 Pro Thr His Val Glu Glu Pro Ala Phe Leu Pro Asp Pro Asn Asp Gly
 65 70 75 80
 Ser Leu Tyr Thr Leu Gly Ser Lys Asn Asn Glu Gly Leu Thr Lys Leu
 85 90 95
 Pro Phe Thr Ile Pro Glu Leu Val Gln Ala Ser Pro Cys Arg Ser Ser
 100 105 110
 Asp Gly Ile Leu Tyr Met Gly Lys Lys Gln Asp Ile Trp Tyr Val Ile
 115 120 125
 Asp Leu Leu Thr Gly Glu Lys Gln Gln Thr Leu Ser Ser Ala Phe Ala
 130 135 140
 Asp Ser Leu Cys Pro Ser Thr Ser Leu Leu Tyr Leu Gly Arg Thr Glu
 145 150 155 160
 Tyr Thr Ile Thr Met Tyr Asp Thr Lys Thr Arg Glu Leu Arg Trp Asn
 165 170 175
 Ala Thr Tyr Phe Asp Tyr Ala Ala Ser Leu Pro Glu Asp Glu Gly Asp
 180 185 190
 Tyr Lys Met Ser His Phe Val Ser Asn Gly Asp Gly Leu Val Val Thr
 195 200 205
 Val Asp Ser Glu Ser Gly Asp Val Leu Trp Ile Gln Asn Tyr Ala Ser
 210 215 220
 Pro Val Val Ala Phe Tyr Val Trp Gln Arg Glu Gly Leu Arg Lys Val
 225 230 235 240
 Met His Ile Asn Val Ala Val Glu Thr Leu Arg Tyr Leu Thr Phe Met
 245 250 255
 Ser Gly Glu Val Gly Arg Ile Thr Lys Trp Lys Tyr Pro Phe Pro Lys
 260 265 270
 Glu Thr Glu Ala Lys Ser Lys Leu Thr Pro Thr Leu Tyr Val Gly Lys
 275 280 285
 Tyr Ser Thr Ser Leu Tyr Ala Ser Pro Ser Met Val His Glu Gly Val
 290 295 300

Ala Val Val Pro Arg Gly Ser Thr Leu Pro Leu Leu Glu Gly Pro Gln
 305 310 315 320

Thr Asp Gly Val Thr Ile Gly Asp Lys Gly Glu Cys Val Ile Thr Pro
 325 330 335

Ser Thr Asp Val Lys Phe Asp Pro Gly Leu Lys Ser Lys Asn Lys Leu
 340 345 350

Asn Tyr Leu Arg Asn Tyr Trp Leu Leu Ile Gly His His Glu Thr Pro
 355 360 365

Leu Ser Ala Ser Thr Lys Met Leu Glu Arg Phe Pro Asn Asn Leu Pro
 370 375 380

Lys His Arg Glu Asn Val Ile Pro Ala Asp Ser Glu Lys Lys Ser Phe
 385 390 395 400

Glu Glu Thr Leu Leu Gln Met Thr Ser Val Phe Ser Trp Ile Leu Asn
 405 410 415

Leu Pro Ser Lys Glu Glu Val Phe Ala Phe Leu Arg Ile Phe Glu Lys
 420 425 430

Asn Met

<210> 93
 <211> 232
 <212> PRT
 <213> Homo sapiens

<400> 93

Met Tyr Ser Leu Gln Leu Gln Ser Val Ser Ser Ala Ile His Leu Cys
 1 5 10 15

Asp Lys Lys Lys Met Glu Leu Ser Leu Asn Ile Pro Val Asn His Gly
 20 25 30

Pro Gln Glu Glu Ser Cys Gly Ser Ser Gln Leu His Glu Asn Ser Gly
 35 40 45

Ser Pro Glu Thr Ser Arg Ser Leu Pro Ala Pro Gln Asp Asn Asp Phe
 50 55 60

Leu Ser Arg Lys Ala Gln Asp Cys Tyr Phe Met Lys Leu His His Cys
 65 70 75 80

Pro Gly Asn His Ser Trp Asp Ser Thr Ile Ser Gly Ser Gln Arg Ala
 85 90 95

Ala Phe Cys Asp His Lys Thr Thr Pro Cys Ser Ser Ala Ile Ile Asn
 100 105 110

Pro Leu Ser Thr Ala Gly Asn Ser Glu Arg Leu Gln Pro Gly Ile Ala

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115 120 125
 Gln Gln Trp Ile Gln Ser Lys Arg Glu Asp Ile Val Asn Gln Met Thr
 130 135 140
 Glu Ala Cys Leu Asn Gln Ser Leu Asp Ala Leu Leu Ser Arg Asp Leu
 145 150 155 160
 Ile Met Lys Glu Asp Tyr Glu Leu Val Ser Thr Lys Pro Thr Arg Thr
 165 170 175
 Ser Lys Val Arg Gln Leu Leu Asp Thr Thr Asp Ile Gln Gly Glu Glu
 180 185 190
 Phe Ala Lys Val Ile Val Gln Lys Leu Lys Asp Asn Lys Gln Met Gly
 195 200 205
 Leu Gln Pro Tyr Pro Glu Ile Leu Val Val Ser Arg Ser Pro Ser Leu
 210 215 220
 Asn Leu Leu Gln Asn Lys Ser Met
 225 230
 <210> 94
 <211> 209
 <212> PRT
 <213> Homo sapiens
 <400> 94
 Met Ala Asp Leu Glu Ala Val Leu Ala Asp Val Ser Tyr Leu Met Ala
 1 5 10 15
 Met Glu Lys Ser Lys Ala Thr Pro Ala Ala Arg Ala Ser Lys Lys Ile
 20 25 30
 Leu Leu Pro Glu Pro Ser Ile Arg Ser Val Met Gln Lys Tyr Leu Glu
 35 40 45
 Asp Arg Gly Glu Val Thr Phe Glu Lys Ile Phe Ser Gln Lys Leu Gly
 50 55 60
 Tyr Leu Leu Phe Arg Asp Phe Cys Leu Asn His Leu Glu Glu Ala Arg
 65 70 75 80
 Pro Leu Val Glu Phe Tyr Glu Glu Ile Lys Lys Tyr Glu Lys Leu Glu
 85 90 95
 Thr Glu Glu Glu Arg Val Ala Arg Ser Arg Glu Ile Phe Asp Ser Tyr
 100 105 110
 Ile Met Lys Glu Leu Leu Ala Cys Ser His Pro Phe Ser Lys Ser Ala
 115 120 125
 Thr Glu His Val Gln Gly His Leu Gly Lys Lys Gln Val Pro Pro Asp
 130 135 140

115 120 125 130 135 140 145 150 155 160 165 170 175 180 185 190 195 200 205 210 215 220 225 230 235 240 245 250 255 260 265 270 275 280 285 290 295 300 305 310 315 320 325 330 335 340 345 350 355 360 365 370 375 380 385 390 395 400 405 410 415 420 425 430 435 440 445 450 455 460 465 470 475 480 485 490 495 500 505 510 515 520 525 530 535 540 545 550 555 560 565 570 575 580 585 590 595 600 605 610 615 620 625 630 635 640 645 650 655 660 665 670 675 680 685 690 695 700 705 710 715 720 725 730 735 740 745 750 755 760 765 770 775 780 785 790 795 800 805 810 815 820 825 830 835 840 845 850 855 860 865 870 875 880 885 890 895 900 905 910 915 920 925 930 935 940 945 950 955 960 965 970 975 980 985 990 995

Leu Phe Gln Pro Tyr Ile Glu Glu Ile Cys Gln Asn Leu Arg Gly Asp
145 150 155 160

Val Phe Gln Lys Phe Ile Glu Arg Val Ala Leu Ala Ala Gly Ala Ala
165 170 175

Thr Leu Pro Ala Val Pro Ser Cys Pro Asn Pro Gln His Pro Gly Ser
180 185 190

Gly Thr Thr Ala Arg His Leu Gln Val Gly Pro Tyr Trp Pro Arg Leu
195 200 205

Ala

<210> 95

<211> 454

<212> PRT

<213> Homo sapiens

<400> 95

Met Gly Leu Val Ser Ser Lys Lys Pro Asp Lys Glu Lys Pro Ile Lys
1 5 10 15

Glu Lys Asp Lys Gly Gln Trp Ser Pro Leu Lys Val Ser Ala Gln Asp
20 25 30

Lys Asp Ala Pro Pro Leu Pro Pro Leu Val Val Phe Asn His Leu Thr
35 40 45

Pro Pro Pro Pro Asp Glu His Leu Asp Glu Asp Lys His Phe Val Val
50 55 60

Ala Leu Tyr Asp Tyr Thr Ala Met Asn Asp Arg Asp Leu Gln Met Leu
65 70 75 80

Lys Gly Glu Lys Leu Gln Val Leu Lys Gly Thr Gly Asp Trp Trp Leu
85 90 95

Ala Arg Ser Leu Val Thr Gly Arg Glu Gly Tyr Val Pro Ser Asn Phe
100 105 110

Val Ala Arg Val Glu Ser Leu Glu Met Glu Arg Trp Phe Phe Arg Ser
115 120 125

Gln Gly Arg Lys Glu Ala Glu Arg Gln Leu Leu Ala Pro Ile Asn Lys
130 135 140

Ala Gly Ser Phe Leu Ile Arg Glu Ser Glu Thr Asn Lys Gly Ala Phe
145 150 155 160

Ser Leu Ser Val Lys Asp Val Thr Thr Gln Gly Glu Leu Ile Lys His
165 170 175

Tyr Lys Ile Arg Cys Leu Asp Glu Gly Gly Tyr Tyr Ile Ser Pro Arg
180 185 190

Ile Thr Phe Pro Ser Leu Gln Ala Leu Val Gln His Tyr Ser Ser Tyr
 195 200 205
 Tyr Lys Asn Asn Met Lys Val Ala Ile Lys Thr Leu Lys Glu Gly Thr
 210 215 220
 Met Ser Pro Glu Ala Phe Leu Gly Glu Ala Asn Val Met Lys Ala Leu
 225 230 235 240
 Gln His Glu Arg Leu Val Arg Leu Tyr Ala Val Val Thr Lys Glu Pro
 245 250 255
 Ile Tyr Ile Val Thr Glu Tyr Met Ala Arg Gly Cys Leu Leu Asp Phe
 260 265 270
 Leu Lys Thr Asp Glu Gly Ser Arg Leu Ser Leu Pro Arg Leu Ile Asp
 275 280 285
 Met Ser Ala Gln Ile Ala Glu Gly Met Ala Tyr Ile Glu Arg Met Asn
 290 295 300
 Ser Ile His Arg Asp Leu Arg Ala Ala Asn Ile Leu Val Ser Glu Ala
 305 310 315 320
 Leu Cys Cys Lys Ile Ala Asp Phe Gly Leu Ala Arg Ile Ile Asp Ser
 325 330 335
 Glu Tyr Thr Ala Gln Glu Gly Ala Lys Phe Pro Ile Lys Trp Thr Ala
 340 345 350
 Pro Glu Ala Ile His Phe Gly Val Phe Thr Ile Lys Ala Asp Val Trp
 355 360 365
 Ser Phe Gly Val Leu Leu Met Glu Val Val Thr Tyr Gly Arg Val Pro
 370 375 380
 Tyr Pro Gly Met Ser Asn Pro Glu Val Ile Arg Asn Leu Glu Arg Gly
 385 390 395 400
 Tyr Arg Met Pro Arg Pro Asp Thr Cys Pro Pro Glu Leu Tyr Arg Gly
 405 410 415
 Val Ile Ala Glu Cys Trp Arg Ser Arg Pro Glu Glu Arg Pro Thr Phe
 420 425 430
 Glu Phe Leu Gln Ser Val Leu Glu Asp Phe Tyr Thr Ala Thr Glu Arg
 435 440 445
 Gln Tyr Glu Leu Gln Pro
 450

<210> 96
 <211> 82
 <212> PRT
 <213> Homo sapiens

<400> 96

Met Glu Asn Phe Gln Lys Val Glu Lys Ile Gly Glu Gly Thr Tyr Gly
1 5 10 15

Val Val Tyr Lys Ala Arg Asn Lys Leu Thr Gly Glu Val Val Ala Leu
20 25 30

Lys Lys Ile Arg Leu Asp Thr Glu Thr Glu Gly Val Pro Ser Thr Ala
35 40 45

Ile Arg Glu Ile Ser Leu Leu Lys Glu Leu Asn His Pro Asn Ile Val
50 55 60

Lys Leu Leu Asp Val Ile His Thr Glu Asn Lys Asn Ile Ser Leu Lys
65 70 75 80

Glu Gly

<210> 97

<211> 118

<212> PRT

<213> Homo sapiens

<400> 97

Met Thr Arg Asp Glu Ala Leu Pro Asp Ser His Ser Ala Gln Asp Phe
1 5 10 15

Tyr Glu Asn Tyr Glu Pro Lys Glu Ile Leu Gly Arg Gly Val Ser Ser
20 25 30

Val Val Arg Arg Cys Ile His Lys Pro Thr Ser Gln Glu Tyr Ala Val
35 40 45

Lys Val Ile Asp Val Thr Gly Gly Gly Ser Phe Ser Pro Glu Glu Val
50 55 60

Arg Glu Leu Arg Glu Ala Thr Leu Lys Glu Val Asp Ile Leu Arg Lys
65 70 75 80

Val Ser Gly His Pro Asn Ile Ser Ile Gln Leu Lys Asp Thr Tyr Glu
85 90 95

Thr Asn Thr Phe Phe Phe Leu Val Phe Asp Leu Met Lys Arg Gly Glu
100 105 110

Leu Phe Asp Leu Pro His
115

<210> 98

<211> 167

<212> PRT

<213> Homo sapiens

<400> 98

Val Phe Leu Gly Arg Cys Arg Ser Val Lys Glu Phe Glu Lys Leu Asn
 1 5 10 15
 Arg Ile Gly Glu Gly Thr Tyr Gly Ile Val Tyr Arg Ala Arg Asp Thr
 20 25 30
 Gln Thr Asp Glu Ile Val Ala Leu Lys Lys Val Arg Met Asp Lys Glu
 35 40 45
 Lys Asp Gly Ile Pro Ile Ser Ser Leu Arg Glu Ile Thr Leu Leu Leu
 50 55 60
 Arg Leu Arg His Pro Asn Ile Val Glu Leu Lys Glu Val Val Val Gly
 65 70 75 80
 Asn His Leu Glu Ser Ile Phe Leu Val Met Gly Tyr Cys Glu Gln Asp
 85 90 95
 Leu Ala Ser Leu Leu Glu Asn Met Pro Thr Pro Phe Ser Glu Ala Gln
 100 105 110
 Val Lys Cys Ile Val Leu Gln Val Leu Arg Gly Leu Gln Tyr Leu His
 115 120 125
 Arg Asn Phe Ile Ile His Arg Asp Leu Lys Val Ser Asn Leu Leu Met
 130 135 140
 Thr Asp Lys Gly Cys Val Lys Thr Gly Gly Cys Asn Leu Gly Gln Ala
 145 150 155 160
 Trp Ser Leu Asp Gly Thr Trp
 165

<210> 99
 <211> 141
 <212> PRT
 <213> Homo sapiens

<400> 99

Met Ser Ser Ala Gly Gly Val Ser Arg Arg Leu Ala Ala Val Arg Ser
 1 5 10 15
 Thr Val Leu Cys Arg Ala Val Gly Cys Ile Leu Ala Glu Leu Leu Ala
 20 25 30
 His Arg Pro Leu Leu Pro Gly Thr Ser Glu Ile His Gln Ile Asp Leu
 35 40 45
 Ile Val Gln Leu Leu Gly Thr Pro Ser Glu Asn Ile Trp Pro Gly Phe
 50 55 60
 Ser Lys Leu Pro Leu Val Gly Gln Tyr Ser Leu Arg Lys Gln Pro Tyr
 65 70 75 80
 Asn Asn Leu Lys His Lys Phe Pro Trp Leu Ser Glu Ala Gly Leu Arg

85

90

95

Leu Leu His Phe Leu Phe Met Tyr Asp Pro Lys Lys Arg Ala Thr Ala
 100 105 110

Gly Asp Cys Leu Glu Ser Ser Tyr Phe Lys Glu Lys Pro Leu Arg Leu
 115 120 125

Pro Ile Ser Gly Val Cys Glu Gly Cys Arg Glu Pro Gly
 130 135 140

<210> 100

<211> 119

<212> PRT

<213> Homo sapiens

<400> 100

Val Phe Leu Gly Arg Cys Arg Ser Val Lys Glu Phe Glu Lys Leu Asn
 1 5 10 15

Arg Ile Gly Glu Gly Thr Tyr Gly Ile Val Tyr Arg Ala Arg Asp Thr
 20 25 30

Gln Thr Asp Glu Ile Val Ala Leu Lys Lys Val Arg Met Asp Lys Glu
 35 40 45

Lys Asp Gly Ile Pro Ile Ser Ser Leu Arg Glu Ile Thr Leu Leu Leu
 50 55 60

Arg Leu Arg His Pro Asn Ile Leu Pro Ala Arg Ala Pro Trp Lys Gly
 65 70 75 80

Arg Ser Gly Gly Ser Ile Arg Gly Cys Arg Gly Leu Met Trp Ser Ser
 85 90 95

Ser Leu Cys Trp Lys Cys Ala Thr Thr Ala Ser Trp Glu Glu Trp Trp
 100 105 110

Val Gln Ser Pro Arg Cys Leu
 115

<210> 101

<211> 756

<212> PRT

<213> Homo sapiens

<400> 101

Met Gly Glu Ala Glu Lys Phe His Tyr Ile Tyr Ser Cys Asp Leu Asp
 1 5 10 15

Ile Asn Val Gln Leu Lys Ile Gly Ser Leu Glu Gly Lys Arg Glu Gln
 20 25 30

Lys Ser Tyr Lys Ala Val Leu Glu Asp Pro Met Leu Lys Phe Ser Gly
 35 40 45

Leu Tyr Gln Glu Thr Cys Ser Asp Leu Tyr Val Thr Cys Gln Val Phe
 50 55 60
 Ala Glu Gly Lys Pro Leu Ala Leu Pro Val Arg Thr Ser Tyr Lys Ala
 65 70 75 80
 Phe Ser Thr Arg Trp Asn Trp Asn Glu Trp Leu Lys Leu Pro Val Lys
 85 90 95
 Tyr Pro Asp Leu Pro Arg Asn Ala Gln Val Ala Leu Thr Ile Trp Asp
 100 105 110
 Val Tyr Gly Pro Gly Lys Ala Val Pro Val Gly Gly Thr Thr Val Ser
 115 120 125
 Leu Phe Gly Lys Tyr Gly Met Phe Arg Gln Gly Met His Asp Leu Lys
 130 135 140
 Val Trp Pro Asn Val Glu Ala Asp Gly Ser Glu Pro Thr Lys Thr Pro
 145 150 155 160
 Gly Arg Thr Ser Ser Thr Leu Ser Glu Asp Gln Met Ser Arg Leu Ala
 165 170 175
 Lys Leu Thr Lys Ala His Arg Gln Gly His Met Val Lys Val Asp Trp
 180 185 190
 Leu Asp Arg Leu Thr Phe Arg Glu Ile Glu Met Ile Asn Glu Ser Val
 195 200 205
 Lys Arg Ser Ser Asn Phe Met Tyr Leu Met Gly Gly Phe Arg Cys Val
 210 215 220
 Lys Cys Asp Asp Lys Glu Tyr Gly Ile Val Tyr Tyr Glu Lys Asp Gly
 225 230 235 240
 Asp Glu Ser Ser Pro Ile Leu Thr Ser Phe Glu Leu Val Lys Val Pro
 245 250 255
 Asp Pro Gln Met Ser Leu Glu Asn Leu Val Glu Ser Lys His His Asn
 260 265 270
 Leu Pro Arg Ser Leu Arg Ser Gly Pro Ser Asp His Asp Leu Lys Pro
 275 280 285
 Tyr Pro Ser Pro Arg Asp Gln Leu Lys Asn Ile Val Ser Tyr Pro Pro
 290 295 300
 Ser Lys Pro Pro Thr Tyr Glu Glu Gln Asp Leu Val Trp Glu Phe Arg
 305 310 315 320
 Tyr Tyr Leu Thr Asn Gln Asp Lys Ala Leu Thr Lys Ile Leu Thr Ser
 325 330 335
 Val Ile Trp Asp Leu Pro Gln Glu Ala Lys Gln Ala Leu Ala Leu Leu
 340 345 350

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Gly Lys Trp Asn Pro Met Asp Val Glu Asp Ser Leu Glu Leu Ile Ser
355 360 365

Ser His Tyr Thr Asn Pro Thr Val Arg Arg Tyr Ala Val Ala Arg Leu
370 375 380

Arg Gln Ala Asp Asp Glu Asp Leu Leu Met Tyr Leu Leu Gln Leu Val
385 390 395 400

Gln Ala Leu Lys Tyr Glu Asn Phe Asp Asp Ile Lys Asn Gly Leu Glu
405 410 415

Pro Thr Lys Lys Asp Ser Gln Ser Ser Val Ser Glu Asn Val Ser Asn
420 425 430

Ser Gly Ile Asn Ser Ala Glu Ile Asp Ser Ser Gln Ile Ile Thr Ser
435 440 445

Pro Leu Pro Ser Val Ser Ser Pro Pro Pro Ala Ser Lys Thr Lys Glu
450 455 460

Val Pro Asp Gly Glu Asn Leu Glu Gln Asp Leu Cys Thr Phe Leu Ile
465 470 475 480

Ser Arg Ala Cys Lys Asn Ser Thr Leu Ala Asn Tyr Leu Tyr Trp Tyr
485 490 495

Val Ile Val Glu Cys Glu Asp Gln Asp Thr Gln Gln Arg Asp Pro Lys
500 505 510

Thr His Glu Met Tyr Leu Asn Val Met Arg Arg Phe Ser Gln Ala Leu
515 520 525

Leu Lys Gly Asp Lys Ser Val Arg Val Met Arg Ser Leu Leu Ala Ala
530 535 540

Gln Gln Thr Phe Val Asp Arg Leu Val His Leu Met Lys Ala Val Gln
545 550 555 560

Arg Glu Ser Gly Asn Arg Lys Lys Lys Asn Glu Arg Leu Gln Ala Leu
565 570 575

Leu Gly Asp Asn Glu Lys Met Asn Leu Ser Asp Val Glu Leu Ile Pro
580 585 590

Leu Pro Leu Glu Pro Gln Val Lys Ile Arg Gly Ile Ile Pro Glu Thr
595 600 605

Ala Thr Leu Phe Lys Ser Ala Leu Met Pro Ala Gln Leu Phe Phe Lys
610 615 620

Thr Glu Asp Gly Gly Lys Tyr Pro Val Ile Phe Lys His Gly Asp Asp
625 630 635 640

Leu Arg Gln Asp Gln Leu Ile Leu Gln Ile Ile Ser Leu Met Asp Lys
645 650 655

Leu Leu Arg Lys Glu Asn Leu Asp Leu Lys Leu Thr Pro Tyr Lys Val
660 665 670

Leu Ala Thr Ser Thr Lys His Gly Phe Met Gln Phe Ile Gln Ser Val
675 680 685

Pro Val Ala Glu Val Leu Asp Thr Glu Gly Ser Ile Gln Asn Phe Phe
690 695 700

Arg Lys Tyr Ala Pro Ser Glu Asn Gly Pro Asn Gly Ile Ser Ala Glu
705 710 715 720

Val Met Asp Thr Tyr Val Lys Ser Cys Ala Gly Tyr Cys Val Ile Thr
725 730 735

Tyr Ile Leu Gly Val Gly Asp Arg His Leu Asp Asn Leu Leu Leu Thr
740 745 750

Lys Thr Gly Gly
755

<210> 102

<211> 508

<212> PRT

<213> Homo sapiens

<400> 102

Met Gly Glu Ala Glu Lys Phe His Tyr Ile Tyr Ser Cys Asp Leu Asp
1 5 10 15

Ile Asn Val Gln Leu Lys Ile Gly Ser Leu Glu Gly Lys Arg Glu Gln
20 25 30

Lys Ser Tyr Lys Ala Val Leu Glu Asp Pro Met Leu Lys Phe Ser Gly
35 40 45

Leu Tyr Gln Glu Thr Cys Ser Asp Leu Tyr Val Thr Cys Gln Val Phe
50 55 60

Ala Glu Gly Lys Pro Leu Ala Leu Pro Val Arg Thr Ser Tyr Lys Ala
65 70 75 80

Phe Ser Thr Arg Trp Asn Trp Asn Glu Trp Leu Lys Leu Pro Val Lys
85 90 95

Tyr Pro Asp Leu Pro Arg Asn Ala Gln Val Ala Leu Thr Ile Trp Asp
100 105 110

Val Tyr Gly Pro Gly Lys Ala Val Pro Val Gly Gly Thr Thr Val Ser
115 120 125

Leu Phe Gly Lys Tyr Gly Met Phe Arg Gln Gly Met His Asp Leu Lys
130 135 140

Val Trp Pro Asn Val Glu Ala Asp Gly Ser Glu Pro Thr Lys Thr Pro

145	150	155	160
Gly Arg Thr Ser Ser Thr Leu Ser Glu Asp Gln Met Ser Arg Leu Ala			
	165	170	175
Lys Leu Thr Lys Ala His Arg Gln Gly His Met Val Lys Val Asp Trp			
	180	185	190
Leu Asp Arg Leu Thr Phe Arg Glu Ile Glu Met Ile Asn Glu Ser Val			
	195	200	205
Lys Arg Ser Ser Asn Phe Met Tyr Leu Met Gly Gly Phe Arg Cys Val			
	210	215	220
Lys Cys Asp Asp Lys Glu Tyr Gly Ile Val Tyr Tyr Glu Lys Asp Gly			
	225	230	235
Asp Glu Ser Ser Pro Ile Leu Thr Ser Phe Glu Leu Val Lys Val Pro			
	245	250	255
Asp Pro Gln Met Ser Leu Glu Asn Leu Val Glu Ser Lys His His Asn			
	260	265	270
Leu Pro Arg Ser Leu Arg Ser Gly Pro Ser Asp His Asp Leu Lys Pro			
	275	280	285
Tyr Pro Ser Pro Arg Asp Gln Leu Lys Asn Ile Val Ser Tyr Pro Pro			
	290	295	300
Ser Lys Pro Pro Thr Tyr Glu Glu Gln Asp Leu Val Trp Glu Phe Arg			
	305	310	315
Tyr Tyr Leu Thr Asn Gln Asp Lys Ala Leu Thr Lys Ile Leu Thr Ser			
	325	330	335
Val Ile Trp Asp Leu Pro Gln Glu Ala Lys Gln Ala Leu Ala Leu Leu			
	340	345	350
Gly Lys Trp Asn Pro Met Asp Val Glu Asp Ser Leu Glu Leu Ile Ser			
	355	360	365
Ser His Tyr Thr Asn Pro Thr Val Arg Arg Tyr Ala Val Ala Arg Leu			
	370	375	380
Arg Gln Ala Asp Asp Glu Asp Leu Leu Met Tyr Leu Leu Gln Leu Val			
	385	390	395
Gln Ala Leu Lys Tyr Glu Asn Phe Asp Asp Ile Lys Asn Gly Leu Glu			
	405	410	415
Pro Thr Lys Lys Asp Ser Gln Ser Ser Val Ser Glu Asn Val Ser Asn			
	420	425	430
Ser Gly Ile Asn Ser Ala Glu Ile Asp Ser Ser Gln Ile Ile Thr Ser			
	435	440	445
Pro Leu Pro Ser Val Ser Ser Pro Pro Pro Ala Ser Lys Thr Lys Glu			

145 150 155 160
 165 170 175
 180 185 190
 195 200 205
 210 215 220
 225 230 235
 245 250 255
 260 265 270
 275 280 285
 290 295 300
 305 310 315
 325 330 335
 340 345 350
 355 360 365
 370 375 380
 385 390 395
 405 410 415
 420 425 430
 435 440 445

450 455 460

Val Pro Asp Gly Glu Asn Leu Glu Gln Asp Leu Cys Thr Phe Leu Ile
 465 470 475 480

Ser Arg Ala Cys Lys Asn Ser Thr Leu Ala Asn Tyr Leu Tyr Trp Tyr
 485 490 495

Val Lys Ile Ile Phe Cys Leu Phe Ser Tyr Tyr Pro
 500 505

<210> 103
 <211> 140
 <212> PRT
 <213> Homo sapiens

<400> 103

Met Gly Asn Ala Ala Ala Lys Lys Gly Ser Glu Gln Glu Ser Val
 1 5 10 15

Lys Glu Phe Leu Ala Lys Ala Lys Glu Asp Phe Leu Lys Lys Trp Glu
 20 25 30

Ser Pro Ala Gln Asn Thr Ala His Leu Asp Gln Phe Glu Arg Ile Lys
 35 40 45

Thr Leu Gly Thr Gly Ser Phe Gly Arg Val Met Leu Val Lys His Lys
 50 55 60

Glu Thr Gly Asn His Tyr Ala Met Lys Ile Leu Asp Lys Gln Lys Val
 65 70 75 80

Val Lys Leu Lys Gln Ile Glu His Thr Leu Asn Glu Lys Arg Ile Leu
 85 90 95

Gln Ala Val Asn Phe Pro Phe Leu Val Lys Leu Glu Phe Ser Phe Lys
 100 105 110

Asp Asn Ser Asn Leu Tyr Met Val Met Glu Tyr Val Pro Gly Gly Glu
 115 120 125

Met Phe Ser His Leu Arg Arg Ile Gly Arg Phe Arg
 130 135 140

<210> 104
 <211> 156
 <212> PRT
 <213> Homo sapiens

<400> 104

Met Val Val Phe Asn Gly Leu Leu Lys Ile Lys Ile Cys Glu Ala Val
 1 5 10 15

Ser Leu Lys Pro Thr Ala Trp Ser Leu Arg His Ala Val Gly Pro Arg
 20 25 30

Pro Gln Thr Phe Leu Leu Asp Pro Tyr Ile Ala Leu Asn Val Asp Asp
 35 40 45
 Ser Arg Ile Gly Gln Thr Ala Thr Lys Gln Lys Thr Asn Ser Pro Ala
 50 55 60
 Trp His Asp Glu Phe Val Thr Asp Val Cys Asn Gly Arg Lys Ile Glu
 65 70 75 80
 Leu Ala Val Phe His Asp Ala Pro Ile Gly Tyr Asp Asp Phe Val Ala
 85 90 95
 Asn Cys Thr Ile Gln Phe Glu Glu Leu Leu Gln Asn Gly Ser Arg His
 100 105 110
 Phe Glu Asp Trp Ile Asp Leu Glu Pro Glu Gly Arg Val Tyr Val Ile
 115 120 125
 Ile Asp Leu Ser Gly Ser Ser Gly Glu Val Lys Ile Pro Asn Ser Ala
 130 135 140
 Phe Cys Glu Arg Glu Arg Val Glu Met Arg His Ser
 145 150 155
 <210> 105
 <211> 520
 <212> PRT
 <213> Homo sapiens
 <400> 105
 Met Ile Leu Ile Pro Arg Met Leu Leu Val Leu Phe Leu Leu Leu Pro
 1 5 10 15
 Ile Leu Ser Ser Ala Lys Ala Gln Val Asn Pro Ala Ile Cys Arg Tyr
 20 25 30
 Pro Leu Gly Met Ser Gly Gly Gln Ile Pro Asp Glu Asp Ile Thr Ala
 35 40 45
 Ser Ser Gln Trp Ser Glu Ser Thr Ala Ala Lys Tyr Gly Arg Leu Asp
 50 55 60
 Ser Glu Glu Gly Asp Gly Ala Trp Cys Pro Glu Ile Pro Val Glu Pro
 65 70 75 80
 Asp Asp Leu Lys Glu Phe Leu Gln Ile Asp Leu His Thr Leu His Phe
 85 90 95
 Ile Thr Leu Val Gly Thr Gln Gly Arg His Ala Gly Gly His Gly Ile
 100 105 110
 Glu Phe Ala Pro Met Tyr Lys Ile Asn Tyr Ser Arg Asp Gly Thr Arg
 115 120 125
 Trp Ile Ser Trp Arg Asn Arg His Gly Lys Gln Val Leu Asp Gly Asn

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130	135	140
Ser Asn Pro Tyr Asp	Ile Phe Leu Lys Asp	Leu Glu Pro Pro Ile Val
145	150	155 160
Ala Arg Phe Val Arg	Phe Ile Pro Val Thr Asp	His Ser Met Asn Val
	165	170 175
Cys Met Arg Val Glu	Leu Tyr Gly Cys Val	Trp Leu Asp Gly Leu Val
	180	185 190
Ser Tyr Asn Ala Pro	Ala Gly Gln Gln Phe Val	Leu Pro Gly Gly Ser
	195	200 205
Ile Ile Tyr Leu Asn	Asp Ser Val Tyr Asp	Gly Ala Val Gly Tyr Ser
	210	215 220
Met Thr Glu Gly Leu	Gly Gln Leu Thr Asp	Gly Val Ser Gly Leu Asp
	225 230	235 240
Asp Phe Thr Gln Thr	His Glu Tyr His Val	Trp Pro Gly Tyr Asp Tyr
	245	250 255
Val Gly Trp Arg Asn	Glu Ser Ala Thr Asn	Gly Tyr Ile Glu Ile Met
	260	265 270
Phe Glu Phe Asp Arg	Ile Arg Asn Phe Thr	Thr Met Lys Val His Cys
	275	280 285
Asn Asn Met Phe Ala	Lys Gly Val Lys Ile	Phe Lys Glu Val Gln Cys
	290 295	300
Tyr Phe Arg Ser Glu	Ala Ser Glu Trp Glu	Pro Asn Ala Ile Ser Phe
	305 310	315 320
Pro Leu Val Leu Asp	Asp Val Asn Pro Ser	Ala Arg Phe Val Thr Val
	325	330 335
Pro Leu His His Arg	Met Ala Ser Ala Ile	Lys Cys Gln Tyr His Phe
	340	345 350
Ala Asp Thr Trp Met	Met Phe Ser Glu Ile	Thr Phe Gln Ser Asp Ala
	355	360 365
Ala Met Tyr Asn Asn	Ser Glu Ala Leu Pro	Thr Ser Pro Met Ala Pro
	370 375	380
Thr Thr Tyr Asp Pro	Met Leu Lys Val Asp	Asp Ser Asn Thr Arg Ile
	385 390	395 400
Leu Ile Gly Cys Leu	Val Ala Ile Ile Phe	Ile Leu Leu Ala Ile Ile
	405	410 415
Val Ile Ile Leu Trp	Arg Gln Phe Trp Gln	Lys Met Leu Glu Lys Ala
	420	425 430
Ser Arg Arg Met Leu	Asp Asp Glu Met Thr	Val Ser Leu Ser Leu Pro

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435

440

445

Ser Asp Ser Ser Met Phe Asn Asn Arg Ser Ser Ser Pro Ser Glu
 450 455 460

Gln Gly Ser Asn Ser Thr Tyr Asp Arg Ile Phe Pro Leu Arg Pro Asp
 465 470 475 480

Tyr Gln Glu Pro Ser Arg Leu Ile Arg Lys Leu Pro Glu Phe Ala Pro
 485 490 495

Gly Glu Glu Glu Ser Gly Glu Asp Asp Val Val Glu Gln Gly Val Lys
 500 505 510

Gly Glu Thr Ser Ala Ser Ile Arg
 515 520

<210> 106

<211> 284

<212> PRT

<213> Homo sapiens

<400> 106

Met Ala Asn Phe Gln Glu His Leu Ser Cys Ser Ser Ser Pro His Leu
 1 5 10 15

Pro Phe Ser Glu Ser Lys Thr Phe Asn Gly Leu Gln Asp Glu Leu Thr
 20 25 30

Ala Met Gly Asn His Pro Ser Pro Lys Leu Leu Glu Asp Gln Gln Glu
 35 40 45

Lys Gly Met Val Arg Thr Glu Leu Ile Glu Ser Val His Ser Pro Val
 50 55 60

Thr Thr Thr Val Leu Thr Ser Val Ser Glu Asp Ser Arg Asp Gln Phe
 65 70 75 80

Glu Asn Ser Val Leu Gln Leu Arg Glu His Asp Glu Ser Glu Thr Ala
 85 90 95

Val Ser Gln Gly Asn Ser Asn Thr Val Asp Gly Glu Ser Thr Ser Gly
 100 105 110

Thr Glu Asp Ile Lys Ile Gln Phe Ser Arg Ser Gly Ser Gly Ser Gly
 115 120 125

Gly Phe Leu Glu Gly Leu Phe Gly Cys Leu Arg Pro Val Trp Asn Ile
 130 135 140

Ile Gly Lys Ala Tyr Ser Thr Asp Tyr Lys Phe Met Gln Gln Asp Thr
 145 150 155 160

Trp Glu Val Pro Phe Glu Glu Ile Ser Glu Leu Gln Trp Leu Gly Ser
 165 170 175

112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000

Gly Ala Gln Gly Ala Val Phe Leu Gly Lys Phe Arg Ala Glu Glu Val
180 185 190

Ala Ile Lys Lys Val Arg Glu Gln Asn Glu Thr Asp Ile Lys His Leu
195 200 205

Arg Lys Leu Lys His Pro Asn Ile Ile Ala Phe Lys Gly Val Cys Thr
210 215 220

Gln Ala Pro Cys Tyr Cys Ile Ile Met Glu Tyr Cys Ala His Gly Gln
225 230 235 240

Leu Tyr Glu Val Leu Arg Ala Gly Arg Lys Ile Thr Pro Arg Leu Leu
245 250 255

Val Asp Trp Ser Thr Gly Ile Ala Ser Gly Met Asn Tyr Leu His Leu
260 265 270

His Lys Ile Ile His Arg Asp Leu Lys Ser Pro Lys
275 280

<210> 107
<211> 185
<212> PRT
<213> Homo sapiens

<400> 107

Met Cys Gly Gln Arg Trp Ile His Asn Phe Thr Cys Leu Ala Phe Leu
1 5 10 15

Phe His Thr Leu Lys Ser Gly Asn Lys Ser Val His Leu Arg Lys Ala
20 25 30

Ser Ser Pro Asn Leu His Arg Arg Gln Trp Glu Lys Asn Val Pro Asn
35 40 45

Thr Ala Leu Thr Ala Leu Glu Asn Ala Ser Ile Leu Thr Ser Ser Leu
50 55 60

Thr Ala Glu Asp Asp Arg Gly Gly Ser Val Ile Lys Tyr Ser Lys Asn
65 70 75 80

Thr Thr Arg Lys Gln Trp Leu Lys Glu Thr Pro Asp Thr Leu Leu Asn
85 90 95

Ile Leu Lys Asn Ala Asp Leu Ser Leu Ala Phe Gln Thr Tyr Thr Ile
100 105 110

Tyr Arg Pro Gly Ser Glu Gly Phe Leu Lys Gly Pro Leu Ser Glu Glu
115 120 125

Thr Glu Ala Ser Asp Ser Val Asp Gly Gly His Asp Ser Val Ile Leu
130 135 140

Asp Pro Glu Arg Leu Glu Pro Gly Leu Asp Glu Glu Asp Thr Asp Phe
145 150 155 160

112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000

Tyr Thr Asp Tyr Cys Asn Arg Ile Asp Leu Arg Val Pro Ser Gly His
100 105 110

Leu Lys Glu Pro Glu His Pro Ser Met Trp Gly Pro Val Glu Leu Val
115 120 125

Gly Ile Ile Ala Gly Pro Val Phe Leu Leu Phe Leu Ile Ile Ile Ile
130 135 140

Val Phe Leu Val Ile Asn Tyr His Gln Arg Val Tyr His Asn Arg Gln
145 150 155 160

Arg Leu Asp Met Glu Asp Pro Ser Cys Glu Met Cys Leu Ser Lys Asp
165 170 175

Lys Thr Leu Gln Asp Leu Val Tyr Asp Leu Ser Thr Ser Gly Ser Gly
180 185 190

Ser Gly Thr Lys Phe Phe Arg Ala Ser Cys Leu Trp Leu Ala Phe Ile
195 200 205

Ser Phe Pro Ala Gly
210

<210> 110

<211> 383

<212> PRT

<213> Homo sapiens

<400> 110

Met Asp Glu Gln Glu Ala Leu Asn Ser Ile Met Asn Asp Leu Val Ala
1 5 10 15

Leu Gln Met Asn Arg Arg His Arg Met Pro Gly Tyr Glu Thr Met Lys
20 25 30

Asn Lys Asp Thr Gly His Ser Asn Arg Gln Ser Asp Val Arg Ile Lys
35 40 45

Phe Glu His Asn Gly Glu Arg Arg Ile Ile Ala Phe Ser Arg Pro Val
50 55 60

Lys Tyr Glu Asp Val Glu His Lys Val Thr Thr Val Phe Gly Gln Pro
65 70 75 80

Leu Asp Leu His Tyr Met Asn Asn Glu Leu Ser Ile Leu Leu Lys Asn
85 90 95

Gln Asp Asp Leu Asp Lys Ala Ile Asp Ile Leu Asp Arg Ser Ser Ser
100 105 110

Met Lys Ser Leu Arg Ile Leu Leu Leu Ser Gln Asp Arg Asn His Asn
115 120 125

Ser Ser Ser Pro His Ser Glu Val Ser Arg Gln Val Arg Ile Lys Ala
130 135 140

110
383
PRT
Homo sapiens
110

Ser Gln Ser Ala Gly Asp Ile Asn Thr Ile Tyr Gln Pro Pro Glu Pro
145 150 155 160

Arg Ser Arg His Leu Ser Val Ser Ser Gln Asn Pro Gly Arg Ser Ser
165 170 175

Pro Pro Pro Gly Tyr Val Pro Glu Arg Gln Gln His Ile Ala Arg Gln
180 185 190

Gly Ser Tyr Thr Ser Ile Asn Ser Glu Gly Glu Phe Ile Pro Glu Thr
195 200 205

Ser Glu Gln Cys Met Leu Asp Pro Leu Ser Ser Ala Glu Asn Ser Leu
210 215 220

Ser Gly Ser Cys Gln Ser Leu Asp Arg Ser Ala Asp Ser Pro Ser Phe
225 230 235 240

Arg Lys Ser Arg Met Ser Arg Ala Gln Ser Phe Pro Asp Asn Arg Gln
245 250 255

Glu Tyr Ser Asp Arg Glu Thr Gln Leu Tyr Asp Lys Gly Val Lys Gly
260 265 270

Gly Thr Tyr Pro Arg Arg Tyr His Val Ser Val His His Lys Asp Tyr
275 280 285

Ser Asp Gly Arg Arg Thr Phe Pro Arg Ile Arg Arg His Gln Gly Asn
290 295 300

Leu Phe Thr Leu Val Pro Ser Ser Arg Ser Leu Ser Thr Asn Gly Glu
305 310 315 320

Asn Met Gly Leu Ala Val Gln Tyr Leu Asp Pro Arg Gly Arg Leu Arg
325 330 335

Ser Ala Asp Ser Glu Asn Ala Leu Ser Val Gln Glu Arg Asn Val Pro
340 345 350

Thr Lys Cys Glu Glu Leu Ser Leu Ala Arg Arg Arg Leu Pro Arg Trp
355 360 365

Ser Gln Thr Ser Tyr Gly Gly Lys Gln Leu Gly Pro Trp Asp Pro
370 375 380

<210> 111

<211> 414

<212> PRT

<213> Homo sapiens

<400> 111

Met Asp Glu Gln Glu Ala Leu Asn Ser Ile Met Asn Asp Leu Val Ala
1 5 10 15

Leu Gln Met Asn Arg Arg His Arg Met Pro Gly Tyr Glu Thr Met Lys

20					25					30					
Asn	Lys	Asp	Thr	Gly	His	Ser	Asn	Arg	Gln	Lys	Lys	His	Asn	Ser	Ser
	35						40					45			
Ser	Ser	Ala	Leu	Leu	Asn	Ser	Pro	Thr	Val	Thr	Thr	Ser	Ser	Cys	Ala
	50					55					60				
Gly	Ala	Ser	Glu	Lys	Lys	Lys	Phe	Leu	Ser	Asp	Val	Arg	Ile	Lys	Phe
65				70					75					80	
Glu	His	Asn	Gly	Glu	Arg	Arg	Ile	Ile	Ala	Phe	Ser	Arg	Pro	Val	Lys
			85					90						95	
Tyr	Glu	Asp	Val	Glu	His	Lys	Val	Thr	Thr	Val	Phe	Gly	Gln	Pro	Leu
			100					105					110		
Asp	Leu	His	Tyr	Met	Asn	Asn	Glu	Leu	Ser	Ile	Leu	Leu	Lys	Asn	Gln
		115					120					125			
Asp	Asp	Leu	Asp	Lys	Ala	Ile	Asp	Ile	Leu	Asp	Arg	Ser	Ser	Ser	Met
		130				135					140				
Lys	Ser	Leu	Arg	Ile	Leu	Leu	Leu	Ser	Gln	Asp	Arg	Asn	His	Asn	Ser
145				150					155					160	
Ser	Ser	Pro	His	Ser	Glu	Val	Ser	Arg	Gln	Val	Arg	Ile	Lys	Ala	Ser
			165					170						175	
Gln	Ser	Ala	Gly	Asp	Ile	Asn	Thr	Ile	Tyr	Gln	Pro	Pro	Glu	Pro	Arg
			180					185					190		
Ser	Arg	His	Leu	Ser	Val	Ser	Ser	Gln	Asn	Pro	Gly	Arg	Ser	Ser	Pro
		195					200					205			
Pro	Pro	Gly	Tyr	Val	Pro	Glu	Arg	Gln	Gln	His	Ile	Ala	Arg	Gln	Gly
		210				215					220				
Ser	Tyr	Thr	Ser	Ile	Asn	Ser	Glu	Gly	Glu	Phe	Ile	Pro	Glu	Thr	Ser
225				230					235					240	
Glu	Gln	Cys	Met	Leu	Asp	Pro	Leu	Ser	Ser	Ala	Glu	Asn	Ser	Leu	Ser
			245					250						255	
Gly	Ser	Cys	Gln	Ser	Leu	Asp	Arg	Ser	Ala	Asp	Ser	Pro	Ser	Phe	Arg
			260					265					270		
Lys	Ser	Arg	Met	Ser	Arg	Ala	Gln	Ser	Phe	Pro	Asp	Asn	Arg	Gln	Glu
		275					280					285			
Tyr	Ser	Asp	Arg	Glu	Thr	Gln	Leu	Tyr	Asp	Lys	Gly	Val	Lys	Gly	Gly
				290			295				300				
Thr	Tyr	Pro	Arg	Arg	Tyr	His	Val	Ser	Val	His	His	Lys	Asp	Tyr	Ser
305						310					315				320
Asp	Gly	Arg	Arg	Thr	Phe	Pro	Arg	Ile	Arg	Arg	His	Gln	Gly	Asn	Leu

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	325		330		335
Phe Thr Leu Val Pro Ser Ser Arg Ser Leu Ser Thr Asn Gly Glu Asn					
	340		345		350
Met Gly Leu Ala Val Gln Tyr Leu Asp Pro Arg Gly Arg Leu Arg Ser					
	355		360		365
Ala Asp Ser Glu Asn Ala Leu Ser Val Gln Glu Arg Asn Val Pro Thr					
	370		375		380
Lys Cys Glu Glu Leu Ser Leu Ala Arg Arg Arg Leu Pro Arg Trp Ser					
	385		390		395
					400
Gln Thr Ser Tyr Gly Gly Lys Gln Leu Gly Pro Trp Asp Pro					
	405		410		

<210> 112
 <211> 201
 <212> PRT
 <213> Homo sapiens

<400> 112

Met Ala Lys Gln Tyr Asp Ser Val Glu Cys Pro Phe Cys Asp Glu Val					
1	5		10		15
Ser Lys Tyr Glu Lys Leu Ala Lys Ile Gly Gln Gly Thr Phe Gly Glu					
	20		25		30
Val Phe Lys Ala Arg His Arg Lys Thr Gly Gln Lys Val Ala Leu Lys					
	35		40		45
Lys Val Leu Met Glu Asn Glu Lys Glu Gly Phe Pro Ile Thr Ala Leu					
	50		55		60
Arg Glu Ile Lys Ile Leu Gln Leu Leu Lys His Glu Asn Val Val Asn					
	65		70		75
					80
Leu Ile Glu Ile Cys Arg Thr Lys Ala Ser Pro Tyr Asn Arg Cys Lys					
	85		90		95
Gly Ser Ile Tyr Leu Val Phe Asp Phe Cys Glu His Asp Leu Ala Gly					
	100		105		110
Leu Leu Ser Asn Val Leu Val Lys Phe Thr Leu Ser Glu Ile Lys Arg					
	115		120		125
Val Met Gln Met Leu Leu Asn Gly Leu Tyr Tyr Asn His Asp Phe Phe					
	130		135		140
Trp Ser Asp Pro Met Pro Ser Asp Leu Lys Gly Met Leu Ser Thr His					
	145		150		155
					160
Leu Thr Ser Met Phe Glu Tyr Leu Ala Pro Pro Arg Arg Lys Gly Ser					
	165		170		175

Gln Ile Thr Gln Gln Ser Thr Asn Gln Ser Arg Asn Pro Ala Thr Thr
 180 185 190

Asn Gln Thr Glu Phe Glu Arg Val Phe
 195 200

<210> 113
 <211> 125
 <212> PRT
 <213> Homo sapiens

<400> 113

Met Ala Thr Ser Arg Tyr Glu Pro Val Ala Glu Ile Gly Val Gly Ala
 1 5 10 15

Tyr Gly Thr Val Tyr Lys Ala Arg Asp Pro His Ser Gly His Phe Cys
 20 25 30

Ala Leu Lys Ser Val Arg Val Pro Asn Gly Gly Gly Gly Gly Gly Gly
 35 40 45

Leu Pro Ile Ser Thr Val Arg Glu Val Ala Leu Leu Arg Arg Leu Glu
 50 55 60

Ala Phe Glu His Pro Asn Val Val Arg Leu Met Asp Val Cys Ala Thr
 65 70 75 80

Ser Arg Thr Asp Arg Glu Ile Lys Val Thr Leu Val Phe Glu His Val
 85 90 95

Asp Gln Asp Leu Arg Thr Tyr Leu Asp Lys Ala Pro Pro Pro Gly Leu
 100 105 110

Pro Ala Glu Thr Ile Lys Val Ser Gly Val Gly Arg His
 115 120 125

<210> 114
 <211> 45
 <212> PRT
 <213> Homo sapiens

<400> 114

Met Ala Thr Ser Arg Tyr Glu Pro Val Ala Glu Ile Gly Val Gly Ala
 1 5 10 15

Tyr Gly Thr Val Tyr Lys Ala Arg Asp Pro His Ser Gly His Phe Cys
 20 25 30

Ala Leu Lys Ser Val Arg Val Pro Thr His Leu Ser Phe
 35 40 45

<210> 115
 <211> 160
 <212> PRT
 <213> Homo sapiens

<400> 115

Met Gly Val Cys Pro Gly Lys Thr Pro Phe Cys Ser Pro Lys Pro Gln
1 5 10 15

Gly Leu Ala Arg Gly His Trp Ser Arg Arg Arg Asp Ile Cys Val Thr
20 25 30

Gly Pro Leu Pro Leu Glu Pro Arg Ala Val Tyr Cys Lys Asp Val Leu
35 40 45

Asp Ile Glu Gln Phe Ser Thr Val Lys Gly Val Asn Leu Asp His Thr
50 55 60

Asp Asp Asp Phe Tyr Ser Lys Phe Ser Thr Gly Ser Val Ser Ile Pro
65 70 75 80

Trp Gln Asn Glu Met Ile Glu Thr Glu Cys Phe Lys Glu Leu Asn Val
85 90 95

Phe Gly Pro Asn Gly Thr Leu Pro Pro Asp Leu Asn Arg Asn His Pro
100 105 110

Pro Glu Pro Pro Lys Lys Gly Leu Leu Gln Arg Leu Phe Lys Arg Gln
115 120 125

His Gln Asn Asn Ser Lys Ser Ser Pro Ser Ser Lys Thr Ser Phe Asn
130 135 140

His His Ile Asn Ser Asn His Val Ser Ser Asn Ser Thr Gly Ser Ser
145 150 155 160

<210> 116

<211> 300

<212> PRT

<213> Homo sapiens

<220>

<221> -

<222> (1)..(300)

<223> "XAA" can be any amino acid

<400> 116

Met Pro Arg Ala Arg Met Pro Xaa Pro Arg Ala His Ser Lys Ala Gly
1 5 10 15

Cys Pro Cys Gly Cys Pro Arg Asp Pro Leu Thr Leu Leu Ser Pro Ser
20 25 30

Gly His Ile Arg Ile Ser Asp Leu Gly Leu Ala Val Lys Ile Pro Glu
35 40 45

Gly Asp Leu Ile Arg Gly Arg Val Gly Thr Val Gly Tyr Met Ala Pro
50 55 60

Glu	Val	Leu	Asn	Asn	Gln	Arg	Tyr	Gly	Leu	Ser	Pro	Asp	Tyr	Trp	Gly	65	70	75	80
Leu	Gly	Cys	Leu	Ile	Tyr	Glu	Met	Ile	Glu	Gly	Gln	Ser	Pro	Phe	Arg	85	90	95	
Gly	Arg	Lys	Glu	Lys	Val	Lys	Arg	Glu	Glu	Val	Asp	Arg	Arg	Val	Leu	100	105	110	
Glu	Thr	Glu	Glu	Val	Tyr	Ser	His	Lys	Phe	Ser	Glu	Glu	Ala	Lys	Ser	115	120	125	
Ile	Cys	Lys	Met	Leu	Leu	Thr	Lys	Asp	Ala	Lys	Gln	Arg	Leu	Gly	Cys	130	135	140	
Gln	Glu	Glu	Gly	Ala	Ala	Glu	Val	Lys	Arg	His	Pro	Phe	Phe	Arg	Asn	145	150	155	160
Met	Asn	Phe	Lys	Arg	Leu	Glu	Ala	Gly	Met	Leu	Asp	Pro	Pro	Phe	Val	165	170	175	
Pro	Asp	Pro	Arg	Ala	Val	Tyr	Cys	Lys	Asp	Val	Leu	Asp	Ile	Glu	Gln	180	185	190	
Phe	Ser	Thr	Val	Lys	Gly	Val	Asn	Leu	Asp	His	Thr	Asp	Asp	Asp	Phe	195	200	205	
Tyr	Ser	Lys	Phe	Ser	Thr	Gly	Ser	Val	Ser	Ile	Pro	Trp	Gln	Asn	Glu	210	215	220	
Met	Ile	Glu	Thr	Glu	Cys	Phe	Lys	Glu	Leu	Asn	Val	Phe	Gly	Pro	Asn	225	230	235	240
Gly	Thr	Leu	Pro	Pro	Asp	Leu	Asn	Arg	Asn	His	Pro	Pro	Glu	Pro	Pro	245	250	255	
Lys	Lys	Gly	Leu	Leu	Gln	Arg	Leu	Phe	Lys	Arg	Gln	His	Gln	Asn	Asn	260	265	270	
Ser	Lys	Ser	Ser	Pro	Ser	Ser	Lys	Thr	Ser	Phe	Asn	His	His	Ile	Asn	275	280	285	
Ser	Asn	His	Val	Ser	Ser	Asn	Ser	Thr	Gly	Ser	Ser	290	295	300					

<210> 117
 <211> 169
 <212> PRT
 <213> Homo sapiens

<220>
 <221> -
 <222> (1)..(169)
 <223> "XAA" can be any amino acid

<400> 117

Met Arg Met Pro Arg Ala Arg Met Pro Xaa Pro Arg Ala His Ser Lys
1 5 10 15

Ala Gly Cys Pro Cys Gly Cys Pro Arg Asp Pro Leu Thr Leu Leu Ser
20 25 30

Pro Ser Gly His Ile Arg Ile Ser Asp Leu Gly Leu Ala Val Lys Ile
35 40 45

Pro Glu Gly Asp Leu Ile Arg Gly Arg Val Gly Thr Val Gly Tyr Met
50 55 60

Ala Pro Glu Val Leu Asn Asn Gln Arg Tyr Gly Leu Ser Pro Asp Tyr
65 70 75 80

Trp Gly Leu Gly Cys Leu Ile Tyr Glu Met Ile Glu Gly Gln Ser Pro
85 90 95

Phe Arg Gly Arg Lys Glu Lys Val Lys Arg Glu Glu Val Asp Arg Arg
100 105 110

Val Leu Glu Thr Glu Glu Val Tyr Ser His Lys Phe Ser Glu Glu Ala
115 120 125

Lys Ser Ile Cys Lys Met Val Ser Ser Trp Trp Pro Asp Ala Thr Leu
130 135 140

Lys Leu Val Ala Pro Ser Leu Gly Leu Ala Pro Val Cys Pro Gln Asn
145 150 155 160

Ser Lys Gln Ala Glu Gly Thr Gly Val
165

<210> 118

<211> 319

<212> PRT

<213> Homo sapiens

<400> 118

Met Ala Pro Phe Leu Arg Ile Ala Phe Asn Ser Tyr Glu Leu Gly Ser
1 5 10 15

Leu Gln Ala Glu Asp Glu Ala Asn Gln Pro Phe Cys Ala Val Lys Met
20 25 30

Lys Glu Ala Leu Ser Thr Glu Arg Gly Lys Thr Leu Val Gln Lys Lys
35 40 45

Pro Thr Met Tyr Pro Glu Trp Lys Ser Thr Phe Asp Ala His Ile Tyr
50 55 60

Glu Gly Arg Val Ile Gln Ile Val Leu Met Arg Ala Ala Glu Glu Pro
65 70 75 80

Val Ser Glu Val Thr Val Gly Val Ser Val Leu Ala Glu Arg Cys Lys
 85 90 95
 Lys Asn Asn Gly Lys Ala Glu Phe Trp Leu Asp Leu Gln Pro Gln Ala
 100 105 110
 Lys Val Leu Met Ser Val Gln Tyr Phe Leu Glu Asp Val Asp Cys Lys
 115 120 125
 Gln Ser Met Arg Ser Glu Asp Glu Ala Lys Phe Pro Thr Met Asn Arg
 130 135 140
 Arg Gly Ala Ile Lys Gln Ala Lys Ile His Tyr Ile Lys Asn His Glu
 145 150 155 160
 Phe Ile Ala Thr Phe Phe Gly Gln Pro Thr Phe Cys Ser Val Cys Lys
 165 170 175
 Asp Phe Val Trp Gly Leu Asn Lys Gln Gly Tyr Lys Cys Arg Gln Cys
 180 185 190
 Asn Ala Ala Ile His Lys Lys Cys Ile Asp Lys Ile Ile Gly Arg Cys
 195 200 205
 Thr Gly Thr Ala Ala Asn Ser Arg Asp Thr Ile Phe Gln Lys Glu Arg
 210 215 220
 Phe Asn Ile Asp Met Pro His Arg Phe Lys Val His Asn Tyr Met Ser
 225 230 235 240
 Pro Thr Phe Cys Asp His Cys Gly Ser Leu Leu Leu Pro Ala Pro His
 245 250 255
 Asp Lys His Gln Trp Asp Cys Gly Asp Phe Cys Cys Trp Pro Arg Pro
 260 265 270
 Cys Pro Gln Ser Val Leu Gly Cys Arg Leu Ala Gly Leu Ser Trp Tyr
 275 280 285
 Phe Leu Cys Glu Leu Cys Val Asn Leu Leu Phe Leu Cys Leu Arg Arg
 290 295 300
 Glu Ile Val Asn Pro Val Phe His Tyr Leu Asn Val Val Ile Tyr
 305 310 315

<210> 119
 <211> 236
 <212> PRT
 <213> Homo sapiens

<400> 119

Met Asp Glu Thr His Pro Gly Tyr Gly Lys Glu Val Asp Leu Glu Phe
 1 5 10 15
 Leu Val Ser Pro Ser Leu Pro Cys Leu Leu Ser Phe Ala Gly Ser Ala
 20 25 30

Arg His Leu Val Pro Pro Asp Ser Asn Leu Phe Ser Lys Leu Trp Ala
35 40 45

Cys Gly Val Ile Leu Phe Thr Leu Leu Ala Gly Ser Pro Pro Phe Trp
50 55 60

His Arg Arg Gln Ile Leu Met Leu Arg Met Ile Met Glu Gly Gln Tyr
65 70 75 80

Gln Phe Ser Ser Pro Glu Trp Asp Asp Arg Ser Ser Thr Val Lys Asp
85 90 95

Leu Ile Ser Arg Leu Leu Gln Val Asp Pro Glu Ala Arg Leu Thr Ala
100 105 110

Glu Gln Ala Leu Gln His Pro Phe Phe Glu Arg Cys Glu Gly Ser Gln
115 120 125

Pro Trp Asn Leu Thr Pro Arg Gln Arg Phe Arg Val Ala Val Trp Thr
130 135 140

Val Leu Ala Ala Gly Arg Val Ala Leu Ser Thr His Arg Val Arg Pro
145 150 155 160

Leu Thr Lys Asn Ala Leu Leu Arg Asp Pro Tyr Ala Leu Arg Ser Val
165 170 175

Arg His Leu Ile Asp Asn Cys Ala Phe Arg Leu Tyr Gly His Trp Val
180 185 190

Lys Lys Gly Glu Gln Gln Asn Arg Ala Ala Leu Phe Gln His Arg Pro
195 200 205

Pro Gly Pro Phe Pro Ile Met Gly Pro Glu Glu Glu Gly Asp Ser Ala
210 215 220

Ala Ile Thr Glu Asp Glu Ala Val Leu Val Leu Gly
225 230 235

<210> 120

<211> 572

<212> PRT

<213> Homo sapiens

<400> 120

Met Ala Phe Cys Ala Lys Met Arg Ser Ser Lys Lys Thr Glu Val Asn
1 5 10 15

Leu Glu Ala Pro Glu Pro Gly Val Glu Val Ile Phe Tyr Leu Ser Asp
20 25 30

Arg Glu Pro Leu Arg Leu Gly Ser Gly Glu Tyr Thr Ala Glu Glu Leu
35 40 45

Cys Ile Arg Ala Ala Gln Ala Cys Arg Ile Ser Pro Leu Cys His Asn

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Leu Phe Ala Leu Tyr Asp Glu Asn Thr Lys Leu Trp Tyr Ala Pro Asn
65 70 75 80

Arg Thr Ile Thr Val Asp Asp Lys Met Ser Leu Arg Leu His Tyr Arg
85 90 95

Met Arg Phe Tyr Phe Thr Asn Trp His Gly Thr Asn Asp Asn Glu Gln
100 105 110

Ser Val Trp Arg His Ser Pro Lys Lys Gln Lys Asn Gly Tyr Glu Lys
115 120 125

Lys Lys Ile Pro Asp Ala Thr Pro Leu Leu Asp Ala Ser Ser Leu Glu
130 135 140

Tyr Leu Phe Ala Gln Gly Gln Tyr Asp Leu Val Lys Cys Leu Ala Pro
145 150 155 160

Ile Arg Asp Pro Lys Thr Glu Gln Asp Gly His Asp Ile Glu Asn Glu
165 170 175

Cys Leu Gly Met Ala Val Leu Ala Ile Ser His Tyr Ala Met Met Lys
180 185 190

Lys Met Gln Leu Pro Glu Leu Pro Lys Asp Ile Ser Tyr Lys Arg Tyr
195 200 205

Ile Pro Glu Thr Leu Asn Lys Ser Ile Arg Gln Arg Asn Leu Leu Thr
210 215 220

Arg Met Arg Ile Asn Asn Val Phe Lys Asp Phe Leu Lys Glu Phe Asn
225 230 235 240

Asn Lys Thr Ile Cys Asp Ser Ser Val Ser Thr His Asp Leu Lys Val
245 250 255

Lys Tyr Leu Ala Thr Leu Glu Thr Leu Thr Lys His Tyr Gly Ala Glu
260 265 270

Ile Phe Glu Thr Ser Met Leu Leu Ile Ser Ser Glu Asn Glu Met Asn
275 280 285

Trp Phe His Ser Asn Asp Gly Gly Asn Val Leu Tyr Tyr Glu Val Met
290 295 300

Val Thr Gly Asn Leu Gly Ile Gln Trp Arg His Lys Pro Asn Val Val
305 310 315 320

Ser Val Glu Lys Glu Lys Asn Lys Leu Lys Arg Lys Lys Leu Glu Asn
325 330 335

Lys Asp Lys Lys Asp Glu Glu Lys Asn Lys Ile Arg Glu Glu Trp Asn
340 345 350

Asn Phe Ser Phe Phe Pro Glu Ile Thr His Ile Val Ile Lys Glu Ser

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Val Val Ser Ile Asn Lys Gln Asp Asn Lys Lys Met Glu Leu Lys Leu
 370 375 380

Ser Ser His Glu Glu Ala Leu Ser Phe Val Ser Leu Val Asp Gly Tyr
 385 390 395 400

Phe Arg Leu Thr Ala Asp Ala His His Tyr Leu Cys Thr Asp Val Ala
 405 410 415

Pro Pro Leu Ile Val His Asn Ile Gln Asn Gly Cys His Gly Pro Ile
 420 425 430

Cys Thr Glu Tyr Ala Ile Asn Lys Leu Arg Gln Glu Gly Ser Glu Glu
 435 440 445

Gly Met Tyr Val Leu Arg Trp Ser Cys Thr Asp Phe Asp Asn Ile Leu
 450 455 460

Met Thr Val Thr Cys Phe Glu Lys Ser Glu Gln Val Gln Gly Ala Gln
 465 470 475 480

Lys Gln Phe Lys Asn Phe Gln Ile Glu Val Gln Lys Gly Arg Tyr Ser
 485 490 495

Leu His Gly Ser Asp Arg Ser Phe Pro Ser Leu Gly Asp Leu Met Ser
 500 505 510

His Leu Lys Lys Gln Ile Leu Arg Thr Asp Asn Ile Ser Phe Met Leu
 515 520 525

Lys Arg Cys Cys Gln Pro Lys Pro Arg Gly Ser Leu Pro Val Pro Glu
 530 535 540

Pro Gly Cys Ile Pro Ser Val Ile Ala Glu Thr Gln Ile Asp Gln Asn
 545 550 555 560

Thr Leu Thr Asp Leu Asn Lys Val Asp Pro Pro Pro
 565 570

<210> 121

<211> 311

<212> PRT

<213> Homo sapiens

<400> 121

Met Gly Cys Val Gln Cys Lys Asp Lys Glu Ala Thr Lys Leu Thr Glu
 1 5 10 15

Glu Arg Asp Gly Ser Leu Asn Gln Ser Ser Gly Tyr Arg Tyr Gly Thr
 20 25 30

Asp Pro Thr Pro Gln His Tyr Pro Ser Phe Gly Val Thr Ser Ile Pro
 35 40 45

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PRT
Homo sapiens

Met Gly Cys Val Gln Cys Lys Asp Lys Glu Ala Thr Lys Leu Thr Glu
 1 5 10 15
 Glu Arg Asp Gly Ser Leu Asn Gln Ser Ser Gly Tyr Arg Tyr Gly Thr
 20 25 30
 Asp Pro Thr Pro Gln His Tyr Pro Ser Phe Gly Val Thr Ser Ile Pro
 35 40 45
 Asn Tyr Asn Asn Phe His Ala Ala Gly Gly Gln Gly Leu Thr Val Phe
 50 55 60
 Gly Gly Val Asn Ser Ser Ser His Thr Gly Thr Leu Arg Thr Arg Gly
 65 70 75 80
 Gly Thr Gly Val Thr Leu Phe Val Ala Leu Tyr Asp Tyr Glu Ala Arg
 85 90 95
 Thr Glu Asp Asp Leu Ser Phe His Lys Gly Glu Lys Phe Gln Ile Leu
 100 105 110
 Asn Ser Ser Glu Gly Asp Trp Trp Glu Ala Arg Ser Leu Thr Thr Gly
 115 120 125
 Glu Thr Gly Tyr Ile Pro Ser Asn Tyr Val Ala Pro Val Asp Ser Ile
 130 135 140
 Gln Ala Glu Glu Trp Tyr Phe Gly Lys Leu Gly Arg Lys Asp Ala Glu
 145 150 155 160
 Arg Gln Leu Leu Ser Phe Gly Asn Pro Arg Gly Thr Phe Leu Ile Arg
 165 170 175
 Glu Ser Glu Thr Thr Lys Gly Ala Tyr Ser Leu Ser Ile Arg Asp Trp
 180 185 190
 Asp Asp Met Lys Gly Asp His Val Lys His Tyr Lys Ile Arg Lys Leu
 195 200 205
 Asp Asn Gly Gly Tyr Tyr Ile Thr Thr Arg Ala Gln Phe Glu Thr Leu
 210 215 220
 Gln Gln Leu Val Gln His Tyr Ser Glu Arg Ala Ala Gly Leu Cys Cys
 225 230 235 240
 Arg Leu Val Val Pro Cys His Lys Gly Met Pro Arg Leu Thr Asp Leu
 245 250 255
 Ser Val Lys Thr Lys Asp Val Trp Glu Ile Pro Arg Glu Ser Leu Gln
 260 265 270
 Leu Ile Lys Arg Leu Gly Asn Gly Gln Phe Gly Glu Val Trp Met Gly
 275 280 285
 Thr Trp Asn Gly Asn Thr Lys Val Ala Ile Lys Thr Leu Lys Pro Gly
 290 295 300

Thr Met Ser Pro Glu Ser Phe Leu Glu Glu Ala Gln Ile Met Lys Lys
305 310 315 320

Leu Lys His Asp Lys Leu Val Gln Leu Tyr Ala Val Val Ser Glu Glu
325 330 335

Pro Ile Tyr Ile Val Thr Glu Tyr Met Asn Lys Gly Trp Ala Thr Pro
340 345 350

Leu Leu Ser Pro Ala His Ser Ala Leu Arg Gly Cys Leu Gly Glu Arg
355 360 365

Asn Gly Ser Phe Leu Leu Ala Thr Phe Leu Val Ser Ala Trp Val Lys
370 375 380

Tyr Ser His
385

<210> 123

<211> 516

<212> PRT

<213> Homo sapiens

<400> 123

Met Arg Leu Glu Leu Pro Ala Gly His Trp Glu Arg Pro Asp Leu Glu
1 5 10 15

Leu Leu Glu Lys Ser Thr Gln Gln Gly Arg Ala Trp Asp Leu Glu Leu
20 25 30

Leu Glu Lys Gly Ala Gly Ser Leu Pro Leu Tyr Val Trp Lys Val Ser
35 40 45

Leu Ser Leu Leu Glu Leu His Lys Arg Arg Lys Ala Leu Thr Glu Pro
50 55 60

Glu Ala Arg Tyr Tyr Leu Arg Gln Ile Val Leu Gly Cys Gln Tyr Leu
65 70 75 80

His Arg Asn Arg Val Ile His Arg Asp Leu Lys Leu Gly Asn Leu Phe
85 90 95

Leu Asn Glu Asp Leu Glu Val Lys Ile Gly Asp Phe Gly Leu Ala Thr
100 105 110

Lys Val Glu Tyr Asp Gly Glu Arg Lys Lys Thr Leu Cys Gly Thr Pro
115 120 125

Asn Tyr Ile Ala Pro Glu Val Leu Ser Lys Lys Gly His Ser Phe Glu
130 135 140

Val Asp Val Trp Ser Ile Gly Cys Ile Met Tyr Thr Leu Leu Val Gly
145 150 155 160

Lys Pro Pro Phe Glu Thr Ser Cys Leu Lys Glu Thr Tyr Leu Arg Ile

165	170	175
Lys Lys Asn Glu Tyr Ser Ile Pro Lys His Ile Asn Pro Val Ala Ala		
180	185	190
Ser Leu Ile Gln Lys Met Leu Gln Thr Asp Pro Thr Ala Arg Pro Thr		
195	200	205
Ile Asn Glu Leu Leu Asn Asp Glu Phe Phe Thr Ser Gly Tyr Ile Pro		
210	215	220
Ala Arg Leu Pro Ile Thr Cys Leu Thr Ile Pro Pro Arg Phe Ser Ile		
225	230	235
Ala Pro Ser Ser Leu Asp Pro Ser Asn Arg Lys Pro Leu Thr Val Leu		
245	250	255
Asn Lys Gly Leu Glu Asn Pro Leu Pro Glu Arg Pro Arg Glu Lys Glu		
260	265	270
Glu Pro Val Val Arg Glu Thr Gly Glu Val Val Asp Cys His Leu Ser		
275	280	285
Asp Met Leu Gln Gln Leu His Ser Val Asn Ala Ser Lys Pro Ser Glu		
290	295	300
Arg Gly Leu Val Arg Gln Glu Glu Ala Glu Asp Pro Ala Cys Ile Pro		
305	310	315
Ile Phe Trp Val Ser Lys Trp Val Asp Tyr Ser Asp Lys Tyr Gly Leu		
325	330	335
Gly Tyr Gln Leu Cys Asp Asn Ser Val Gly Val Leu Phe Asn Asp Ser		
340	345	350
Thr Arg Leu Ile Leu Tyr Asn Asp Gly Asp Ser Leu Gln Tyr Ile Glu		
355	360	365
Arg Asp Gly Thr Glu Ser Tyr Leu Thr Val Ser Ser His Pro Asn Ser		
370	375	380
Leu Met Lys Lys Ile Thr Leu Leu Lys Tyr Phe Arg Asn Tyr Met Ser		
385	390	395
Glu His Leu Leu Lys Ala Gly Ala Asn Ile Thr Pro Arg Glu Gly Asp		
405	410	415
Glu Leu Ala Arg Leu Pro Tyr Leu Arg Thr Trp Phe Arg Thr Arg Ser		
420	425	430
Ala Ile Ile Leu His Leu Ser Asn Gly Ser Val Gln Ile Asn Phe Phe		
435	440	445
Gln Asp His Thr Lys Leu Ile Leu Cys Pro Leu Met Ala Ala Val Thr		
450	455	460
Tyr Ile Asp Glu Lys Arg Asp Phe Arg Thr Tyr Arg Leu Ser Leu Leu		

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<210> 125
<211> 134
<212> PRT
<213> Homo sapiens

<400> 125

Met Ala Leu Leu Pro Pro Phe Leu Ala Ser His Arg Leu Glu Val Ser
1 5 10 15

Arg Asp Ser Gly Trp Leu Gly Gln Cys Trp Leu Gln Gly Val Trp Glu
20 25 30

Arg Gly Leu Thr Val Ala Phe Ser Ile Leu Cys Asn Thr Leu Gln Pro
35 40 45

Glu Phe Ser Thr Tyr Leu Asn Phe Cys Arg Ser Leu Arg Phe Asp Asp
50 55 60

Lys Pro Asp Tyr Ser Tyr Leu Arg Gln Leu Phe Arg Asn Leu Phe His
65 70 75 80

Arg Gln Gly Phe Ser Tyr Asp Tyr Val Phe Asp Trp Asn Met Leu Lys
85 90 95

Phe Gly Ala Ser Ser Ser Gln Ala Gln Pro Arg Asp Ser Pro Met Thr
100 105 110

Ala Lys Gly Pro Phe Cys Pro Arg Pro Cys Pro Cys Ala Gly Pro Thr
115 120 125

Tyr Ser Pro Thr Tyr Trp
130

<210> 126
<211> 233
<212> PRT
<213> Homo sapiens

<400> 126

Met Ala Leu Leu Pro Pro Phe Leu Ala Ser His Arg Leu Glu Val Ser
1 5 10 15

Arg Asp Ser Gly Trp Leu Gly Gln Cys Trp Leu Gln Gly Val Trp Glu
20 25 30

Arg Gly Leu Thr Val Ala Phe Ser Ile Leu Cys Asn Thr Leu Gln Pro
35 40 45

Glu Phe Ser Thr Tyr Leu Asn Phe Cys Arg Ser Leu Arg Phe Asp Asp
50 55 60

Lys Pro Asp Tyr Ser Tyr Leu Arg Gln Leu Phe Arg Asn Leu Phe His
65 70 75 80

Arg Gln Gly Phe Ser Tyr Asp Tyr Val Phe Asp Trp Asn Met Leu Lys

85

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Phe Gly Gly Pro Leu Ser Cys Gln Pro Pro Ala Leu Pro Cys Gly Arg
 100 105 110

Pro Gln Asp Glu Leu Gly Cys Ser Pro Glu Ser Arg Gly Cys Gly Pro
 115 120 125

Gly Ala Ala Arg Thr Arg Thr Arg Gly Glu Asp Gly Ala Ala Thr Gly
 130 135 140

Val Arg Asp Pro Ser Pro Ala Pro Trp Pro Thr His Gly Gly His Cys
 145 150 155 160

Gln Pro Ala Pro Gln Cys Arg Arg Ala Arg Gly Phe His Ala Ser Leu
 165 170 175

Pro His Pro Ala Gly Trp Gln Tyr Phe Ser Gln Ser Asp Leu Ala Gly
 180 185 190

Arg Pro Gly Glu Glu Gly Glu Tyr Glu Ala Ala Gln Gly Cys Ala Arg
 195 200 205

Gln Arg Leu Leu Leu Arg Pro His Trp Ala Ala Arg Gly Leu Pro Asp
 210 215 220

Pro Ser Leu Thr Asp Lys Cys Ala Ile
 225 230

<210> 127

<211> 243

<212> PRT

<213> Homo sapiens

<400> 127

Met Ala Ala Glu Leu Asn Lys Asn Lys Lys Ala Arg Ala Ala Glu Ala
 1 5 10 15

Ala Arg Ala Ala Glu Ala Ala Lys Ala Ala Glu Ala Thr Lys Ala Ala
 20 25 30

Glu Ala Ala Ala Lys Ala Ala Lys Ala Ser Asn Thr Ser Thr Pro Thr
 35 40 45

Lys Gly Asn Thr Glu Thr Ser Ala Ser Ala Ser Gln Thr Asn His Val
 50 55 60

Lys Asp Val Lys Lys Ile Lys Ile Glu His Ala Pro Ser Pro Ser Ser
 65 70 75 80

Gly Gly Thr Leu Lys Asn Asp Lys Ala Lys Thr Lys Pro Pro Leu Gln
 85 90 95

Val Thr Lys Val Glu Asn Asn Leu Ile Val Asp Lys Ala Thr Lys Lys
 100 105 110

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Ala Val Ile Val Gly Lys Glu Ser Lys Ser Ala Ala Thr Lys Glu Glu
115 120 125

Ser Val Ser Leu Lys Glu Lys Thr Lys Pro Leu Thr Pro Ser Ile Gly
130 135 140

Ala Lys Glu Lys Glu Gln His Val Ala Leu Val Thr Ser Thr Leu Pro
145 150 155 160

Pro Leu Pro Leu Pro Pro Met Leu Pro Glu Asp Lys Glu Ala Asp Ser
165 170 175

Leu Arg Gly Asn Ile Ser Val Lys Ala Val Lys Lys Glu Val Glu Lys
180 185 190

Lys Leu Arg Cys Leu Leu Ala Asp Leu Pro Leu Pro Pro Glu Leu Pro
195 200 205

Gly Gly Asp Asp Leu Ser Lys Ser Pro Glu Glu Lys Lys Thr Ala Thr
210 215 220

Gln Leu His Ser Lys Arg Arg Pro Lys Tyr Val Leu Ala Phe Tyr Leu
225 230 235 240

Leu Leu Asn

<210> 128

<211> 330

<212> PRT

<213> Homo sapiens

<400> 128

Met Ser Ala Lys Val Arg Leu Lys Lys Leu Glu Gln Leu Leu Leu Asp
1 5 10 15

Gly Pro Trp Arg Asn Glu Ser Ala Leu Ser Val Glu Thr Leu Leu Asp
20 25 30

Val Leu Val Cys Leu Tyr Thr Glu Cys Ser His Ser Ala Leu Arg Arg
35 40 45

Asp Lys Tyr Val Ala Glu Phe Leu Glu Trp Ala Lys Pro Phe Thr Gln
50 55 60

Leu Val Lys Glu Met Gln Leu His Arg Glu Asp Phe Glu Ile Ile Lys
65 70 75 80

Val Ile Gly Arg Gly Ala Phe Gly Glu Val Ala Val Val Lys Met Lys
85 90 95

Asn Thr Glu Arg Ile Tyr Ala Met Lys Ile Leu Asn Lys Trp Glu Met
100 105 110

Leu Lys Arg Ala Glu Thr Ala Cys Phe Arg Glu Glu Arg Asp Val Leu
115 120 125

114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000

Val Asn Gly Asp Cys Gln Trp Ile Thr Ala Leu His Tyr Ala Phe Gln
130 135 140

Asp Glu Asn His Leu Tyr Leu Val Met Asp Tyr Tyr Val Gly Gly Asp
145 150 155 160

Leu Leu Thr Leu Leu Ser Lys Phe Glu Asp Lys Leu Pro Glu Asp Met
165 170 175

Ala Arg Phe Tyr Ile Gly Glu Met Val Leu Ala Ile Asp Ser Ile His
180 185 190

Gln Leu His Tyr Val His Arg Asp Ile Lys Pro Asp Asn Val Leu Leu
195 200 205

Asp Val Asn Gly His Ile Arg Leu Ala Asp Phe Gly Ser Cys Leu Lys
210 215 220

Met Asn Asp Asp Gly Thr Val Gln Ser Ser Val Ala Val Gly Thr Pro
225 230 235 240

Asp Tyr Ile Ser Pro Glu Ile Leu Gln Ala Met Glu Asp Gly Met Gly
245 250 255

Lys Tyr Gly Pro Glu Cys Asp Trp Trp Ser Leu Gly Val Cys Met Tyr
260 265 270

Glu Met Leu Tyr Gly Glu Thr Pro Phe Tyr Ala Glu Ser Leu Val Glu
275 280 285

Thr Tyr Gly Lys Ile Met Asn His Glu Glu Arg Phe Gln Phe Pro Ser
290 295 300

His Val Thr Asp Val Ser Glu Glu Ala Lys Asp Leu Ile Gln Arg Leu
305 310 315 320

Ser Cys Ile Gln Arg Thr Pro Tyr Leu Gln
325 330

<210> 129

<211> 246

<212> PRT

<213> Homo sapiens

<400> 129

Met Ser Ala Lys Val Arg Leu Lys Lys Leu Glu Gln Leu Leu Asp
1 5 10 15

Gly Pro Trp Arg Asn Glu Ser Ala Leu Ser Val Glu Thr Leu Leu Asp
20 25 30

Val Leu Val Cys Leu Tyr Thr Glu Cys Ser His Ser Ala Leu Arg Arg
35 40 45

Asp Lys Tyr Val Ala Glu Phe Leu Glu Trp Ala Lys Pro Phe Thr Gln

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Leu Val Lys Glu Met Gln Leu His Arg Glu Asp Phe Glu Ile Ile Lys
65 70 75 80

Val Ile Gly Arg Gly Ala Phe Gly Glu Val Ala Val Val Lys Met Lys
85 90 95

Asn Thr Glu Arg Ile Tyr Ala Met Lys Ile Leu Asn Lys Trp Glu Met
100 105 110

Leu Lys Arg Ala Glu Thr Ala Cys Phe Arg Glu Glu Arg Asp Val Leu
115 120 125

Val Asn Gly Asp Cys Gln Trp Ile Thr Ala Leu His Tyr Ala Phe Gln
130 135 140

Asp Glu Asn His Leu Tyr Leu Val Met Asp Tyr Tyr Val Gly Gly Asp
145 150 155 160

Leu Leu Thr Leu Leu Ser Lys Phe Glu Asp Lys Leu Pro Glu Asp Met
165 170 175

Ala Arg Phe Tyr Ile Gly Glu Met Val Leu Ala Ile Asp Ser Ile His
180 185 190

Gln Leu His Tyr Val His Arg Asp Ile Lys Pro Asp Asn Val Leu Leu
195 200 205

Asp Val Asn Gly His Ile Arg Leu Ala Asp Phe Gly Ser Cys Leu Lys
210 215 220

Met Asn Asp Asp Gly Thr Val Gly Ile Phe Val Gly Asp Phe Pro Phe
225 230 235 240

Gly Phe Gly Phe Gly Ile
245

<210> 130

<211> 378

<212> PRT

<213> Homo sapiens

<400> 130

Met Glu Leu Arg Val Gly Asn Arg Tyr Arg Leu Gly Arg Lys Ile Gly
1 5 10 15

Ser Gly Ser Phe Gly Asp Ile Tyr Leu Val Gly Ile Pro Thr Ile Arg
20 25 30

Trp Cys Gly Ala Glu Gly Asp Tyr Asn Val Met Val Met Glu Leu Leu
35 40 45

Gly Pro Ser Leu Glu Asp Leu Phe Asn Phe Cys Ser Arg Lys Phe Ser
50 55 60

Leu Lys Thr Val Leu Leu Leu Ala Asp Gln Met Ile Ser Arg Ile Glu
 65 70 75 80
 Tyr Ile His Ser Lys Asn Phe Ile His Arg Asp Val Lys Pro Asp Asn
 85 90 95
 Phe Leu Met Gly Leu Gly Lys Lys Gly Asn Leu Val Tyr Ile Ile Asp
 100 105 110
 Phe Gly Leu Ala Lys Lys Tyr Arg Asp Ala Arg Thr His Gln His Ile
 115 120 125
 Pro Tyr Arg Glu Asn Lys Asn Leu Thr Gly Thr Ala Arg Tyr Ala Ser
 130 135 140
 Ile Asn Thr His Leu Gly Ile Glu Gln Ser Arg Arg Asp Asp Leu Glu
 145 150 155 160
 Ser Leu Gly Tyr Val Leu Met Tyr Phe Asn Leu Gly Ser Leu Pro Trp
 165 170 175
 Gln Gly Leu Lys Ala Ala Thr Lys Arg Gln Lys Tyr Glu Arg Ile Ser
 180 185 190
 Glu Lys Lys Met Ser Thr Pro Ile Glu Val Leu Cys Lys Gly Tyr Pro
 195 200 205
 Ser Glu Phe Ala Thr Tyr Leu Asn Phe Cys Arg Ser Leu Arg Phe Asp
 210 215 220
 Asp Lys Pro Asp Tyr Ser Tyr Leu Arg Gln Leu Phe Arg Asn Leu Phe
 225 230 235 240
 His Arg Gln Gly Phe Ser Tyr Asp Tyr Val Phe Asp Trp Asn Met Leu
 245 250 255
 Lys Phe Gly Ala Ser Arg Ala Ala Asp Asp Ala Glu Arg Asp Ala Gly
 260 265 270
 Asp Arg Glu Glu Arg Leu Arg His Ser Arg Asn Pro Ala Thr Arg Gly
 275 280 285
 Leu Pro Ser Thr Ala Ser Gly Arg Leu Arg Gly Arg Arg Lys Val Ala
 290 295 300
 Pro Pro Thr Pro Leu Thr Pro Thr Ser His Thr Ala Asn Thr Ser Pro
 305 310 315 320
 Arg Pro Val Ser Gly Met Glu Arg Glu Arg Lys Val Ser Met Arg Leu
 325 330 335
 His Arg Gly Ala Pro Val Asn Ile Ser Ser Ser Asp Leu Thr Gly Arg
 340 345 350
 Gln Asp Thr Ser Arg Met Ser Thr Ser Gln Ile Pro Gly Arg Val Ala
 355 360 365

Ser Ser Gly Leu Gln Ser Val Val His Arg
370 375

<210> 131
<211> 561
<212> PRT
<213> Homo sapiens

<400> 131

Met Val Glu Trp Trp Ser Ala Leu Thr Cys Pro Leu Gln Thr Phe Ala
1 5 10 15

Ala Pro Ser Phe Asp Asp Lys Ile Leu Glu Val Val Ala Val Phe Gly
20 25 30

Ser Met Gln Met Ala Val Ser Arg Val Ile Arg Leu Gln His His Arg
35 40 45

Ile Ala Gln Cys Arg Thr Val Lys Ile Ser Ile Leu Gly Asp Glu Gly
50 55 60

Val Pro Val Gln Val Asp Gly Glu Ala Trp Val Gln Pro Pro Gly Tyr
65 70 75 80

Ile Arg Ile Val His Lys Asn Arg Ala Gln Thr Leu Thr Arg Asp Arg
85 90 95

Ala Phe Glu Ser Thr Leu Lys Ser Trp Glu Asp Lys Gln Lys Cys Glu
100 105 110

Leu Pro Arg Pro Pro Ser Cys Ser Leu His Pro Glu Met Leu Ser Glu
115 120 125

Glu Glu Ala Thr Gln Met Asp Gln Phe Gly Gln Ala Ala Gly Val Leu
130 135 140

Ile His Ser Ile Arg Glu Ile Ala Gln Ser His Arg Asp Met Glu Gln
145 150 155 160

Glu Leu Ala His Ala Val Asn Ala Ser Ser Lys Ser Met Asp Arg Val
165 170 175

Tyr Gly Lys Pro Arg Thr Thr Glu Gly Leu Asn Cys Ser Phe Val Leu
180 185 190

Glu Met Val Asn Asn Phe Arg Ala Leu Arg Ser Glu Thr Glu Leu Leu
195 200 205

Leu Ser Gly Lys Met Ala Leu Gln Leu Asp Pro Pro Gln Lys Glu Gln
210 215 220

Leu Gly Ser Ala Leu Ala Glu Met Asp Arg Gln Leu Arg Arg Leu Ala
225 230 235 240

Asp Thr Pro Trp Leu Cys Gln Ser Ala Glu Pro Gly Asp Glu Glu Ser
245 250 255

Thr

<210> 132
<211> 213
<212> PRT
<213> Homo sapiens

<400> 132

Met Ser Asp Val Ala Ile Val Lys Glu Gly Trp Leu His Lys Arg Gly
1 5 10 15
Glu Tyr Ile Lys Thr Trp Arg Pro Arg Tyr Phe Leu Leu Lys Asn Asp
20 25 30
Gly Thr Phe Ile Gly Tyr Lys Glu Arg Pro Gln Asp Val Asp Gln Arg
35 40 45
Glu Ala Pro Leu Asn Asn Phe Ser Val Ala Gln Cys Gln Leu Met Lys
50 55 60
Thr Glu Arg Pro Arg Pro Asn Thr Phe Ile Ile Arg Cys Leu Gln Trp
65 70 75 80
Thr Thr Val Ile Glu Arg Thr Phe His Val Glu Thr Pro Glu Glu Arg
85 90 95
Glu Glu Trp Thr Thr Ala Ile Gln Thr Val Ala Asp Gly Leu Lys Lys
100 105 110
Gln Glu Glu Glu Glu Met Asp Phe Arg Ser Gly Ser Pro Ser Asp Asn
115 120 125
Ser Gly Ala Glu Glu Met Glu Val Ser Leu Ala Lys Pro Lys His Arg
130 135 140
Val Ala Leu Gly Gly Arg Ala Gly Pro Ala His Val Ser Pro His Ser
145 150 155 160
Val Ser Gln Pro Pro Trp Ala Val Cys His Gln Leu Ser Val Ile Ser
165 170 175
Leu Gly Pro Trp Ala Ser Val Gln Pro Gly Gly Thr Arg Cys Asn Leu
180 185 190
Thr Met Val Cys Trp Pro Ala Pro Ser Pro Gly Gly Gly Arg His Thr
195 200 205
Ala Ala Pro Gln His
210

<210> 133
<211> 425
<212> PRT
<213> Homo sapiens

Ser Val Tyr Asp Ile Tyr Leu Pro Thr His Ile Gln Cys Ser Ile Lys
290 295 300

Pro His Ala Ile Ile Ile Leu Pro Asn Thr Asp Gly Met Glu Leu Leu
305 310 315 320

Val Cys Tyr Glu Asp Glu Gly Val Tyr Val Asn Thr Tyr Gly Arg Ile
325 330 335

Thr Lys Asp Val Val Leu Gln Trp Gly Glu Met Pro Thr Ser Val Ala
340 345 350

Tyr Ile Arg Ser Asn Gln Thr Met Gly Trp Gly Glu Lys Ala Ile Glu
355 360 365

Ile Arg Ser Val Glu Thr Gly His Leu Asp Gly Val Phe Met His Lys
370 375 380

Arg Ala Gln Arg Leu Lys Phe Leu Cys Glu Arg Asn Asp Lys Val Phe
385 390 395 400

Phe Ala Ser Val Arg Ser Gly Gly Ser Ser Gln Val Tyr Phe Met Thr
405 410 415

Leu Gly Arg Thr Ser Leu Leu Ser Trp
420 425

<210> 134

<211> 515

<212> PRT

<213> Homo sapiens

<400> 134

Met Ala Ser Arg Thr Pro Arg Asn Cys Ala Val Leu Lys Gly Glu Val
1 5 10 15

Asp Leu Thr Ala Leu Ala Lys Glu Leu Arg Ala Val Glu Asp Val Arg
20 25 30

Pro Pro His Lys Val Thr Asp Tyr Ser Ser Ser Ser Glu Glu Ser Gly
35 40 45

Thr Thr Asp Glu Glu Asp Asp Asp Val Glu Gln Glu Gly Ala Asp Glu
50 55 60

Ser Thr Ser Gly Pro Glu Asp Thr Arg Ala Ala Ser Ser Leu Asn Leu
65 70 75 80

Ser Asn Gly Glu Thr Glu Ser Val Lys Thr Met Ile Val His Asp Asp
85 90 95

Val Glu Ser Glu Pro Ala Met Thr Pro Ser Lys Glu Gly Thr Leu Ile
100 105 110

Val Arg Gln Thr Gln Ser Ala Ser Ser Thr Leu Gln Lys His Lys Ser
115 120 125

Ser Ser Ser Phe Thr Pro Phe Ile Asp Pro Arg Leu Leu Gln Ile Ser
 130 135 140

Pro Ser Ser Gly Thr Thr Val Thr Ser Val Val Gly Phe Ser Cys Asp
 145 150 155 160

Gly Met Arg Pro Glu Ala Ile Arg Gln Asp Pro Thr Arg Lys Gly Ser
 165 170 175

Val Val Asn Val Asn Pro Thr Asn Thr Arg Pro Gln Ser Asp Thr Pro
 180 185 190

Glu Ile Arg Lys Tyr Lys Lys Arg Phe Asn Ser Glu Ile Leu Cys Ala
 195 200 205

Ala Leu Trp Gly Val Asn Leu Leu Val Gly Thr Glu Ser Gly Leu Met
 210 215 220

Leu Leu Asp Arg Ser Gly Gln Gly Lys Val Tyr Pro Leu Ile Asn Arg
 225 230 235 240

Arg Arg Phe Gln Gln Met Asp Val Leu Glu Gly Leu Asn Val Leu Val
 245 250 255

Thr Ile Ser Gly Lys Lys Asp Lys Leu Arg Val Tyr Tyr Leu Ser Trp
 260 265 270

Leu Arg Asn Lys Ile Leu His Asn Asp Pro Glu Val Glu Lys Lys Gln
 275 280 285

Gly Trp Thr Thr Val Gly Asp Leu Glu Gly Cys Val His Tyr Lys Val
 290 295 300

Val Lys Tyr Glu Arg Ile Lys Phe Leu Val Ile Ala Leu Lys Ser Ser
 305 310 315 320

Val Glu Val Tyr Ala Trp Ala Pro Lys Pro Tyr His Lys Phe Met Ala
 325 330 335

Phe Lys Ser Phe Gly Glu Leu Val His Lys Pro Leu Leu Val Asp Leu
 340 345 350

Thr Val Glu Glu Gly Gln Arg Leu Lys Val Ile Tyr Gly Ser Cys Ala
 355 360 365

Gly Phe His Ala Val Asp Val Asp Ser Gly Ser Val Tyr Asp Ile Tyr
 370 375 380

Leu Pro Thr His Ile Gln Cys Ser Ile Lys Pro His Ala Ile Ile Ile
 385 390 395 400

Leu Pro Asn Thr Asp Gly Met Glu Leu Leu Val Cys Tyr Glu Asp Glu
 405 410 415

Gly Val Tyr Val Asn Thr Tyr Gly Arg Ile Thr Lys Asp Val Val Leu
 420 425 430

Gln Trp Gly Glu Met Pro Thr Ser Val Ala Tyr Ile Arg Ser Asn Gln
435 440 445

Thr Met Gly Trp Gly Glu Lys Ala Ile Glu Ile Arg Ser Val Glu Thr
450 455 460

Gly His Leu Asp Gly Val Phe Met His Lys Arg Ala Gln Arg Leu Lys
465 470 475 480

Phe Leu Cys Glu Arg Asn Asp Lys Val Phe Phe Ala Ser Val Arg Ser
485 490 495

Gly Gly Ser Ser Gln Val Tyr Phe Met Thr Leu Gly Arg Thr Ser Leu
500 505 510

Leu Ser Trp
515

<210> 135

<211> 468

<212> PRT

<213> Homo sapiens

<400> 135

Met Ser Ala Arg Val Gln Leu Thr Lys Ser Val Pro Ala Ile Met Arg
1 5 10 15

Ala Met Ala Leu Arg Phe Ala Phe Thr Ser Cys Gln Ile Ser Tyr Ser
20 25 30

Lys Ala Ile Pro Pro Pro Leu Pro Pro Pro Pro Pro His Pro Pro
35 40 45

Ala Ser Arg His Pro Pro Cys Pro His Arg His Pro Arg Asp Lys Leu
50 55 60

Thr Ala Asn Glu Thr Gln Ser Ala Ser Ser Thr Leu Gln Lys His Lys
65 70 75 80

Ser Ser Ser Ser Phe Thr Pro Phe Ile Asp Pro Arg Leu Leu Gln Ile
85 90 95

Ser Pro Ser Ser Gly Thr Thr Val Thr Ser Val Val Gly Phe Ser Cys
100 105 110

Asp Gly Met Arg Pro Glu Ala Ile Arg Gln Asp Pro Thr Arg Lys Gly
115 120 125

Ser Val Val Asn Val Asn Pro Thr Asn Thr Arg Pro Gln Ser Asp Thr
130 135 140

Pro Glu Ile Arg Lys Tyr Lys Lys Arg Phe Asn Ser Glu Ile Leu Cys
145 150 155 160

Ala Ala Leu Trp Gly Val Asn Leu Leu Val Gly Thr Glu Ser Gly Leu

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<210> 136
<211> 666
<212> PRT
<213> Homo sapiens

<220>
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<222> (1)..(666)
<223> "XAA" can be any amino acid

<400> 136

Met Asp Cys Gln Leu Ser Ile Leu Leu Leu Leu Ser Cys Ser Val Leu
1 5 10 15

Asp Ser Phe Gly Glu Leu Ile Pro Gln Pro Ser Asn Glu Val Asn Leu
20 25 30

Leu Asp Ser Lys Thr Ile Gln Gly Glu Leu Gly Trp Ile Ser Tyr Pro
35 40 45

Ser His Gly Trp Glu Glu Ile Ser Gly Val Asp Glu His Tyr Thr Pro
50 55 60

Ile Arg Thr Tyr Gln Val Cys Asn Val Met Asp His Ser Gln Asn Asn
65 70 75 80

Trp Leu Arg Thr Asn Trp Val Pro Arg Asn Ser Ala Gln Lys Ile Tyr
85 90 95

Val Glu Leu Lys Phe Thr Leu Arg Asp Cys Asn Ser Ile Pro Leu Val
100 105 110

Leu Gly Thr Cys Lys Glu Thr Phe Asn Leu Tyr Tyr Met Glu Ser Asp
115 120 125

Asp Asp His Gly Val Lys Phe Arg Glu His Gln Phe Thr Lys Ile Asp
130 135 140

Thr Ile Ala Ala Asp Glu Ser Phe Thr Gln Met Asp Leu Gly Asp Arg
145 150 155 160

Ile Leu Lys Leu Asn Thr Glu Ile Arg Glu Val Gly Pro Val Asn Lys
165 170 175

Lys Gly Phe Tyr Leu Ala Phe Gln Asp Val Gly Ala Cys Val Ala Leu
180 185 190

Val Ser Val Arg Val Tyr Phe Lys Lys Cys Pro Phe Thr Val Lys Asn
195 200 205

Leu Ala Met Phe Pro Asp Thr Val Pro Met Asp Ser Gln Ser Leu Val
210 215 220

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Glu Val Arg Gly Ser Cys Val Asn Asn Ser Lys Glu Glu Asp Pro Pro
 225 230 235 240
 Arg Met Tyr Cys Ser Thr Glu Gly Glu Trp Leu Val Pro Ile Gly Lys
 245 250 255
 Cys Ser Cys Asn Ala Gly Tyr Glu Glu Arg Gly Phe Met Cys Gln Ala
 260 265 270
 Cys Arg Pro Gly Phe Tyr Lys Ala Leu Asp Gly Asn Met Lys Cys Ala
 275 280 285
 Lys Cys Pro Pro His Ser Ser Thr Gln Glu Asp Gly Ser Met Asn Cys
 290 295 300
 Arg Cys Glu Asn Asn Tyr Phe Arg Ala Asp Lys Asp Pro Pro Ser Met
 305 310 315 320
 Ala Cys Thr Arg Pro Pro Ser Ser Pro Arg Asn Val Ile Ser Asn Ile
 325 330 335
 Asn Glu Thr Ser Val Ile Leu Asp Trp Ser Trp Pro Leu Asp Thr Gly
 340 345 350
 Gly Arg Lys Asp Val Thr Phe Asn Ile Ile Cys Lys Lys Cys Gly Trp
 355 360 365
 Asn Ile Lys Gln Cys Glu Pro Cys Ser Pro Asn Val Arg Phe Leu Pro
 370 375 380
 Arg Gln Phe Gly Leu Thr Asn Thr Thr Val Thr Val Thr Asp Leu Leu
 385 390 395 400
 Ala His Thr Asn Tyr Thr Phe Glu Ile Asp Ala Val Asn Gly Val Ser
 405 410 415
 Glu Leu Ser Ser Pro Pro Arg Gln Phe Ala Ala Val Ser Ile Thr Thr
 420 425 430
 Asn Gln Ala Ala Pro Ser Pro Val Leu Thr Ile Lys Lys Asp Arg Thr
 435 440 445
 Ser Arg Asn Ser Ile Ser Leu Ser Trp Gln Glu Pro Glu His Pro Asn
 450 455 460
 Gly Ile Ile Leu Asp Tyr Glu Val Lys Tyr Tyr Glu Lys Gln Glu Gln
 465 470 475 480
 Glu Thr Ser Tyr Thr Ile Leu Arg Ala Arg Gly Thr Asn Val Thr Ile
 485 490 495
 Ser Ser Leu Lys Pro Asp Thr Ile Tyr Val Phe Gln Ile Arg Ala Arg
 500 505 510
 Thr Ala Ala Gly Tyr Gly Thr Asn Ser Arg Lys Phe Glu Phe Glu Thr
 515 520 525

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Ser Pro Asp Ser Phe Ser Ile Ser Gly Glu Ser Ser Gln Val Val Met
 530 535 540

Ile Ala Ile Ser Ala Ala Val Ala Ile Ile Leu Leu Thr Val Val Ile
 545 550 555 560

Tyr Val Leu Ile Gly Arg Phe Cys Gly Tyr Lys Ser Lys His Gly Ala
 565 570 575

Asp Glu Lys Arg Leu His Phe Gly Asn Gly His Leu Lys Leu Pro Gly
 580 585 590

Leu Arg Thr Tyr Val Asp Pro His Thr Tyr Glu Asp Pro Thr Gln Ala
 595 600 605

Val His Glu Phe Ala Lys Glu Leu Asp Ala Thr Asn Ile Ser Ile Asp
 610 615 620

Lys Val Val Gly Ala Val Leu Thr Ser Glu Gln Leu His Asp Ala Glu
 625 630 635 640

Xaa Phe Ser Leu Ala Gly Phe Asn Val Ser Ser Gln Gly Val His Phe
 645 650 655

Ser Pro Ala Arg Ser Leu Pro Val Ala Asn
 660 665

<210> 137
 <211> 458
 <212> PRT
 <213> Homo sapiens

<400> 137

Met Lys Tyr Thr Phe Trp Gly Trp Val Ala Val Val Lys Leu Lys Asn
 1 5 10 15

Ala Asp Lys Val Phe Ala Met Lys Ile Leu Asn Lys Trp Glu Met Leu
 20 25 30

Lys Arg Ala Glu Thr Ala Cys Phe Arg Glu Glu Arg Asp Val Leu Val
 35 40 45

Asn Gly Asp Asn Lys Trp Ile Thr Thr Leu His Tyr Ala Phe Gln Asp
 50 55 60

Asp Asn Asn Leu Tyr Leu Val Met Asp Tyr Tyr Val Gly Gly Asp Leu
 65 70 75 80

Leu Thr Leu Leu Ser Lys Phe Glu Asp Arg Leu Pro Glu Asp Met Ala
 85 90 95

Arg Phe Tyr Leu Ala Glu Met Val Ile Ala Ile Asp Ser Val His Gln
 100 105 110

Leu His Tyr Val His Arg Asp Ile Lys Pro Asp Asn Ile Leu Met Asp
 115 120 125

Met Asn Gly His Ile Arg Leu Ala Asp Phe Gly Ser Cys Leu Lys Leu
 130 135 140
 Met Glu Asp Gly Thr Val Gln Ser Ser Val Ala Val Gly Thr Pro Asp
 145 150 155 160
 Tyr Ile Ser Pro Glu Ile Leu Gln Ala Met Glu Asp Gly Lys Gly Arg
 165 170 175
 Tyr Gly Pro Glu Cys Asp Trp Trp Ser Leu Gly Val Cys Met Tyr Glu
 180 185 190
 Met Leu Tyr Gly Glu Thr Pro Phe Tyr Ala Glu Ser Leu Val Glu Thr
 195 200 205
 Tyr Gly Lys Ile Met Asn His Lys Glu Arg Phe Gln Phe Pro Ala Gln
 210 215 220
 Val Thr Asp Val Ser Glu Asn Ala Lys Asp Leu Ile Arg Arg Leu Ile
 225 230 235 240
 Cys Ser Arg Glu His Arg Leu Gly Gln Asn Gly Ile Glu Asp Phe Lys
 245 250 255
 Lys His Pro Phe Phe Ser Gly Ile Asp Trp Asp Asn Ile Arg Asn Cys
 260 265 270
 Glu Ala Pro Tyr Ile Pro Glu Val Ser Ser Pro Thr Asp Thr Ser Asn
 275 280 285
 Phe Asp Val Asp Asp Asp Cys Leu Lys Asn Ser Glu Thr Met Pro Pro
 290 295 300
 Pro Thr His Thr Ala Phe Ser Gly His His Leu Pro Phe Val Gly Phe
 305 310 315 320
 Thr Tyr Thr Ser Ser Cys Val Leu Ser Asp Arg Ser Cys Leu Arg Val
 325 330 335
 Thr Ala Gly Pro Thr Ser Leu Asp Leu Asp Val Asn Val Gln Arg Thr
 340 345 350
 Leu Asp Asn Asn Leu Ala Thr Glu Ala Tyr Glu Arg Arg Ile Lys Arg
 355 360 365
 Leu Glu Gln Glu Lys Leu Glu Leu Ser Arg Lys Leu Gln Glu Ser Thr
 370 375 380
 Gln Thr Val Gln Ala Leu Gln Tyr Ser Thr Val Asp Gly Pro Leu Thr
 385 390 395 400
 Ala Ser Lys Asp Leu Glu Ile Lys Asn Leu Lys Glu Glu Ile Glu Lys
 405 410 415
 Leu Arg Lys Gln Val Thr Glu Ser Ser His Leu Glu Gln Gln Leu Glu
 420 425 430

Glu Ala Asn Ala Val Arg Gln Glu Leu Asp Asp Ala Phe Arg Gln Ile
 435 440 445

Lys Ala Tyr Glu Lys Gln Ile Lys Thr Leu
 450 455

<210> 138

<211> 262

<212> PRT

<213> Homo sapiens

<400> 138

Met Glu Val Val Asp Pro Gln Gln Leu Gly Met Phe Thr Glu Gly Glu
 1 5 10 15

Leu Met Ser Val Gly Met Asp Thr Phe Ile His Arg Ile Asp Ser Thr
 20 25 30

Glu Val Ile Tyr Gln Pro Arg Arg Lys Arg Ala Lys Leu Ile Gly Lys
 35 40 45

Tyr Leu Met Gly Asp Leu Leu Gly Glu Gly Ser Tyr Gly Lys Val Lys
 50 55 60

Glu Val Leu Asp Ser Glu Thr Leu Cys Arg Arg Ala Val Lys Ile Leu
 65 70 75 80

Lys Lys Lys Lys Leu Arg Arg Ile Pro Asn Gly Glu Ala Asn Val Lys
 85 90 95

Lys Glu Ile Gln Leu Leu Arg Arg Leu Arg His Lys Asn Val Ile Gln
 100 105 110

Leu Val Asp Val Leu Tyr Asn Glu Glu Lys Gln Lys Met Tyr Met Val
 115 120 125

Met Glu Tyr Cys Val Cys Gly Met Gln Glu Met Leu Asp Ser Val Pro
 130 135 140

Glu Lys Arg Phe Pro Val Cys Gln Ala His Gly Ser Pro Ser Arg Arg
 145 150 155 160

Gly Gly Arg His Ala Ser Val Pro Thr Thr Pro Gln Asp Leu Arg Ser
 165 170 175

Ala Leu Gln Gly Arg Ala Gly Gly Gln Gln Gly Pro Gly Ala Ala Leu
 180 185 190

Pro Pro Arg Pro Pro Gly Ser Ala Arg Gly Leu Leu Thr Ser Gln Pro
 195 200 205

Arg Ala Glu Pro Ser Arg Ala Gly Val Gly Gly Gly Arg Arg Pro Pro
 210 215 220

Cys Thr Leu Cys Gly Asp Tyr Trp Pro Arg Pro Trp Pro Arg Ala Pro

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225 230 235 240

Gln Gly Ala Gln Arg Arg Pro Ala Ala Pro Pro Gln Thr Ser Trp Arg

 245 250 255

Val Trp Arg Pro Gly Ser

 260

<210> 139

<211> 203

<212> PRT

<213> Homo sapiens

<400> 139

Met Glu Val Val Asp Pro Gln Gln Leu Gly Met Phe Thr Glu Gly Glu

1 5 10 15

Leu Met Ser Val Gly Met Asp Thr Phe Ile His Arg Ile Asp Ser Thr

 20 25 30

Glu Val Ile Tyr Gln Pro Arg Arg Lys Arg Ala Lys Leu Ile Gly Lys

 35 40 45

Tyr Leu Met Gly Asp Leu Leu Gly Glu Gly Ser Tyr Gly Lys Val Lys

 50 55 60

Glu Val Leu Asp Ser Glu Thr Leu Cys Arg Arg Ala Val Lys Ile Leu

65 70 75 80

Lys Lys Lys Lys Leu Arg Arg Ile Pro Asn Gly Glu Ala Asn Val Lys

 85 90 95

Lys Glu Ile Gln Leu Leu Arg Arg Leu Arg His Lys Asn Val Ile Gln

 100 105 110

Leu Val Asp Val Leu Tyr Asn Glu Glu Lys Gln Lys Met Tyr Met Val

 115 120 125

Met Glu Tyr Cys Val Cys Gly Met Gln Glu Met Leu Asp Ser Val Pro

 130 135 140

Glu Lys Arg Phe Pro Val Cys Gln Ala His Gly Tyr Phe Cys Gln Leu

145 150 155 160

Ile Asp Gly Leu Glu Tyr Leu His Ser Gln Gly Ile Val His Lys Asp

 165 170 175

Ile Lys Pro Gly Asn Leu Leu Leu Thr Thr Gly Gly Thr Leu Lys Ile

 180 185 190

Ser Asp Leu Gly Val Ala Glu Val Gly Thr Cys

 195 200

<210> 140

<211> 244

<212> PRT

<213> Homo sapiens

<400> 140

Met Asp Arg Glu Thr Thr Pro Leu Gly Leu Leu Trp Leu Ile Gln Val
1 5 10 15

Ile Pro Ser Lys Leu Leu Pro Ser Leu Gln Val Lys Asp Phe Leu Ser
20 25 30

Gln Leu Arg Ser Ser Asn Arg Arg Phe Ser Ile Pro Glu Ser Gly Gln
35 40 45

Gly Gly Thr Glu Met Asp Gly Phe Arg Arg Thr Ile Glu Asn Gln His
50 55 60

Ser Arg Asn Asp Val Met Val Ser Glu Trp Leu Asn Lys Leu Asn Leu
65 70 75 80

Glu Glu Pro Pro Ser Ser Val Pro Lys Lys Cys Pro Ser Leu Thr Lys
85 90 95

Arg Ser Arg Ala Gln Glu Glu Gln Val Pro Gln Ala Trp Thr Ala Gly
100 105 110

Thr Ser Ser Asp Ser Met Ala Gln Pro Pro Gln Thr Pro Glu Thr Ser
115 120 125

Thr Phe Arg Asn Gln Met Pro Ser Pro Thr Ser Thr Gly Thr Pro Ser
130 135 140

Pro Gly Pro Arg Gly Asn Gln Gly Ala Glu Arg Gln Gly Met Asn Trp
145 150 155 160

Ser Cys Arg Thr Pro Glu Pro Asn Pro Val Thr Gly Arg Pro Leu Val
165 170 175

Asn Ile Tyr Asn Cys Ser Gly Val Gln Val Gly Asp Asn Asn Tyr Leu
180 185 190

Thr Met Gln Gln Thr Thr Ala Leu Pro Thr Trp Gly Leu Ala Pro Ser
195 200 205

Gly Lys Gly Arg Gly Leu Gln His Pro Pro Pro Val Gly Ser Gln Glu
210 215 220

Gly Pro Lys Asp Pro Glu Ala Trp Ser Arg Pro Gln Gly Trp Tyr Asn
225 230 235 240

His Ser Gly Lys

<210> 141

<211> 222

<212> PRT

<213> Homo sapiens

<400> 141

Met Val Lys Leu Tyr Leu Tyr Gln Lys Asn Val Lys Ile Ala Ile Phe
1 5 10 15

Asp Leu Lys Ser Arg Gln Asn Phe Phe Val Tyr Phe Arg Glu Glu Gln
20 25 30

Ala Arg Glu Leu Tyr Arg Arg Leu Arg Glu Lys Pro Arg Asp Gln Arg
35 40 45

Thr Glu Gly Asp Ser Gln Glu Met Val Arg Leu Leu Leu Gln Ala Ile
50 55 60

Gln Ser Phe Glu Lys Lys Val Arg Val Ile Tyr Thr Gln Leu Ser Lys
65 70 75 80

Thr Val Val Cys Lys Gln Lys Ala Leu Glu Leu Leu Pro Lys Val Glu
85 90 95

Glu Val Val Ser Leu Met Asn Glu Asp Glu Lys Thr Val Val Arg Leu
100 105 110

Gln Glu Lys Arg Gln Lys Glu Leu Trp Asn Leu Leu Lys Ile Ala Cys
115 120 125

Ser Lys Val Arg Gly Pro Val Ser Gly Ser Pro Asp Ser Met Asn Ala
130 135 140

Ser Arg Leu Ser Gln Pro Gly Gln Leu Met Ser Gln Pro Ser Thr Ala
145 150 155 160

Ser Asn Ser Leu Pro Glu Pro Ala Lys Lys Ser Glu Glu Leu Val Ala
165 170 175

Glu Ala His Asn Leu Cys Thr Leu Leu Glu Asn Ala Ile Gln Asp Thr
180 185 190

Val Arg Glu Gln Asp Gln Ser Phe Thr Ala Leu Asp Trp Ser Trp Leu
195 200 205

Gln Thr Glu Glu Glu Glu His Ser Cys Leu Glu Gln Ala Ser
210 215 220

<210> 142

<211> 409

<212> PRT

<213> Homo sapiens

<400> 142

Met Arg Leu Thr Leu Leu Cys Cys Thr Trp Arg Glu Glu Arg Met Gly
1 5 10 15

Glu Glu Gly Ser Glu Leu Pro Val Cys Ala Ser Cys Gly Gln Arg Ile
20 25 30

Tyr Asp Gly Gln Tyr Leu Gln Ala Leu Asn Ala Asp Trp His Ala Asp
35 40 45
Cys Phe Arg Cys Cys Asp Cys Ser Ala Ser Leu Ser His Gln Tyr Tyr
50 55 60
Glu Lys Asp Gly Gln Leu Phe Cys Lys Lys Asp Tyr Trp Ala Arg Tyr
65 70 75 80
Gly Glu Ser Cys His Gly Cys Ser Glu Gln Ile Thr Lys Gly Leu Val
85 90 95
Met Val Ala Gly Glu Leu Lys Tyr His Pro Glu Cys Phe Ile Cys Leu
100 105 110
Thr Cys Gly Thr Phe Ile Gly Asp Gly Asp Thr Tyr Thr Leu Val Glu
115 120 125
His Ser Lys Leu Tyr Cys Gly His Cys Tyr Tyr Gln Thr Val Val Thr
130 135 140
Pro Val Ile Glu Gln Ile Leu Pro Asp Ser Pro Gly Ser His Leu Pro
145 150 155 160
His Thr Val Thr Leu Val Ser Ile Pro Ala Ser Ser His Gly Lys Arg
165 170 175
Gly Leu Ser Val Ser Ile Asp Pro Pro His Gly Pro Pro Gly Cys Gly
180 185 190
Thr Glu His Ser His Thr Val Arg Val Gln Gly Val Asp Pro Gly Cys
195 200 205
Met Ser Pro Asp Val Lys Asn Ser Ile His Val Gly Asp Arg Ile Leu
210 215 220
Glu Ile Asn Gly Thr Pro Ile Arg Asn Val Pro Leu Asp Glu Ile Asp
225 230 235 240
Leu Leu Ile Gln Glu Thr Ser Arg Leu Leu Gln Leu Thr Leu Glu His
245 250 255
Asp Pro His Asp Thr Leu Gly His Gly Leu Gly Pro Glu Thr Ser Pro
260 265 270
Leu Ser Ser Pro Ala Tyr Thr Pro Ser Gly Glu Ala Gly Ser Ser Ala
275 280 285
Arg Gln Lys Pro Val Leu Arg Ser Cys Ser Ile Asp Arg Ser Pro Gly
290 295 300
Ala Gly Ser Leu Gly Ser Pro Ala Ser Gln Arg Lys Asp Leu Gly Arg
305 310 315 320
Ser Glu Ser Leu Arg Val Val Cys Arg Pro His Arg Ile Phe Arg Pro
325 330 335

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Ala Glu Asn Met Ile Gln Thr Tyr Ser Asn Gly Ser Thr Lys Asp Arg		
145	150	155 160
Lys Leu Leu Leu Thr Ala Gln Gln Met Leu Gln Asp Ser Lys Thr Lys		
	165	170 175
Ile Asp Ile Ile Arg Met Gln Leu Arg Arg Ala Leu Gln Ala Asp Gln		
	180	185 190
Leu Glu Asn Gln Ala Ala Pro Asp Asp Thr Gln Gly Ser Pro Asp Leu		
	195	200 205
Gly Ala Val Glu Leu Arg Ile Glu Glu Leu Arg His His Phe Arg Val		
	210	215 220
Glu His Ala Val Ala Glu Gly Ala Lys Asn Val Leu Arg Leu Leu Ser		
	225	230 235 240
Ala Ala Lys Ala Pro Asp Arg Lys Ala Val Ser Glu Ala Gln Glu Lys		
	245	250 255
Leu Thr Glu Ser Asn Gln Lys Leu Gly Leu Leu Arg Glu Ala Leu Glu		
	260	265 270
Arg Arg Leu Gly Glu Leu Pro Ala Asp His Pro Lys Gly Arg Leu Leu		
	275	280 285
Arg Glu Glu Leu Ala Ala Ala Ser Ser Ala Ala Phe Ser Thr Arg Leu		
	290	295 300
Ala Gly Pro Phe Pro Ala Thr His Tyr Ser Thr Leu Cys Lys Pro Ala		
	305	310 315 320
Pro Leu Thr Gly Thr Leu Glu Val Arg Val Val Gly Cys Arg Asp Leu		
	325	330 335
Pro Glu Thr Ile Pro Trp Asn Pro Thr Pro Ser Met Gly Gly Pro Gly		
	340	345 350
Thr Pro Asp Ser Arg Pro Pro Phe Leu Ser Arg Pro Ala Arg Gly Leu		
	355	360 365
Tyr Ser Arg Ser Gly Ser Leu Ser Gly Arg Ser Ser Leu Lys Ala Glu		
	370	375 380
Ala Glu Asn Thr Ser Glu Val Ser Thr Val Leu Lys Leu Asp Asn Thr		
	385	390 395 400
Val Val Gly Gln Thr Ser Trp Lys Pro Cys Gly Pro Asn Ala Trp Asp		
	405	410 415
Gln Ser Phe Thr Leu Glu Leu Glu Arg Ala Arg Glu Leu Glu Leu Ala		
	420	425 430
Val Phe Trp Arg Asp Gln Arg Gly Leu Cys Ala Leu Lys Phe Leu Lys		

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Leu Glu Asp Phe Leu Asp Asn Glu Arg His Glu Val Gln Leu Asp Met
 450 455 460

Glu Pro Gln Gly Cys Leu Val Ala Glu Val Thr Phe Arg Asn Pro Val
 465 470 475 480

Ile Glu Arg Ile Pro Arg Leu Arg Arg Gln Lys Lys Ile Phe Ser Lys
 485 490 495

Gln Gln Gly Lys Ala Phe Gln Arg Ala Arg Gln Met Asn Ile Asp Val
 500 505 510

Ala Thr Trp Val Arg Leu Leu Arg Arg Leu Ile Pro Asn Ala Thr Gly
 515 520 525

Thr Gly Thr Phe Ser Pro Gly Ala Ser Pro Gly Ser Glu Ala Arg Thr
 530 535 540

Thr Gly Asp Ile Ser Val Glu Lys Leu Asn Leu Gly Thr Asp Ser Asp
 545 550 555 560

Ser Ser Pro Gln Lys Ser Ser Arg Asp Pro Pro Ser Ser Pro Ser Ser
 565 570 575

Leu Ser Ser Pro Ile Gln Glu Ser Thr Ala Pro Glu Leu Pro Ser Glu
 580 585 590

Thr Gln Glu Thr Pro Gly Pro Ala Leu Cys Ser Pro Leu Arg Lys Ser
 595 600 605

Pro Leu Thr Leu Glu Asp Phe Lys Phe Leu Ala Val Leu Gly Arg Gly
 610 615 620

His Phe Gly Lys Val Leu Leu Ser Glu Phe Arg Pro Ser Gly Glu Leu
 625 630 635 640

Phe Ala Ile Lys Ala Leu Lys Lys Gly Asp Ile Val Ala Arg Asp Glu
 645 650 655

Val Glu Ser Leu Met Cys Glu Lys Arg Ile Leu Ala Ala Val Thr Ser
 660 665 670

Ala Gly His Pro Phe Leu Val Asn Leu Phe Gly Cys Phe Gln Thr Pro
 675 680 685

Glu His Val Cys Phe Val Met Glu Tyr Ser Ala Gly Gly Asp Leu Met
 690 695 700

Leu His Ile His Ser Asp Val Phe Ser Glu Pro Arg Ala Ile Phe Tyr
 705 710 715 720

Ser Ala Cys Arg Leu Pro Pro Pro Phe Val Pro Thr Leu Ser Gly Arg
 725 730 735

Thr Asp Val Ser Asn Phe Asp Glu Glu Phe Thr Gly Glu Ala Pro Thr

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Leu Ser Pro Pro Arg Asp Ala Arg Pro Leu Thr Ala Ala Glu Gln Ala
 755 760 765

Ala Phe Leu Asp Phe Asp Phe Val Ala Gly Gly Cys
 770 775 780

<210> 145

<211> 401

<212> PRT

<213> Homo sapiens

<400> 145

Met Ala Ser Asp Ala Val Gln Ser Glu Pro Arg Ser Trp Ser Leu Leu
 1 5 10 15

Glu Gln Leu Gly Leu Ala Gly Ala Asp Leu Ala Ala Pro Gly Val Gln
 20 25 30

Gln Gln Leu Glu Leu Glu Arg Glu Arg Leu Arg Arg Glu Ile Arg Lys
 35 40 45

Glu Leu Lys Leu Lys Glu Gly Ala Glu Asn Leu Arg Arg Ala Thr Thr
 50 55 60

Asp Leu Gly Arg Ser Leu Gly Pro Val Glu Leu Leu Leu Arg Gly Ser
 65 70 75 80

Ser Arg Arg Leu Asp Leu Leu His Gln Gln Leu Gln Glu Leu His Ala
 85 90 95

His Val Val Leu Pro Asp Pro Ala Ala Thr His Asp Gly Pro Gln Ser
 100 105 110

Pro Gly Ala Gly Gly Pro Thr Cys Ser Ala Thr Asn Leu Ser Arg Val
 115 120 125

Ala Gly Leu Glu Lys Gln Leu Ala Ile Glu Leu Lys Val Lys Gln Gly
 130 135 140

Ala Glu Asn Met Ile Gln Thr Tyr Ser Asn Gly Ser Thr Lys Asp Arg
 145 150 155 160

Lys Leu Leu Leu Thr Ala Gln Gln Met Leu Gln Asp Ser Lys Thr Lys
 165 170 175

Ile Asp Ile Ile Arg Met Gln Leu Arg Arg Ala Leu Gln Ala Asp Gln
 180 185 190

Leu Glu Asn Gln Ala Ala Pro Asp Asp Thr Gln Gly Ser Pro Asp Leu
 195 200 205

Gly Ala Val Glu Leu Arg Ile Glu Glu Leu Arg His His Phe Arg Val
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Glu His Ala Val Ala Glu Gly Ala Lys Asn Val Leu Arg Leu Leu Ser
 225 230 235 240

Ala Ala Lys Ala Pro Asp Arg Lys Ala Val Ser Glu Ala Gln Glu Lys
 245 250 255

Leu Thr Glu Ser Asn Gln Lys Leu Gly Leu Leu Arg Glu Ala Leu Glu
 260 265 270

Arg Arg Leu Gly Glu Leu Pro Ala Asp His Pro Lys Gly Arg Leu Leu
 275 280 285

Arg Glu Glu Leu Ala Ala Ala Ser Ser Ala Ala Phe Ser Thr Arg Leu
 290 295 300

Ala Gly Pro Phe Pro Ala Thr His Tyr Ser Thr Leu Cys Lys Pro Ala
 305 310 315 320

Pro Leu Thr Gly Thr Leu Glu Val Arg Val Val Gly Cys Arg Asp Leu
 325 330 335

Pro Glu Thr Ile Pro Trp Asn Pro Thr Pro Ser Met Gly Gly Pro Gly
 340 345 350

Thr Pro Asp Ser Arg Pro Pro Phe Leu Ser Arg Pro Ala Arg Gly Leu
 355 360 365

Tyr Ser Arg Ser Gly Ser Leu Ser Gly Arg Ser Ser Leu Lys Ala Glu
 370 375 380

Ala Glu Asn Thr Ser Glu Val Ser Thr Val Leu Lys Leu Asp Asn Thr
 385 390 395 400

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<211> 96

<212> PRT

<213> Homo sapiens

<400> 146

Met Gln Ser Phe Leu Val Glu Gly Arg Phe Lys His Glu Met Phe Glu
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Lys Val Phe Ala Glu Glu Arg Asn Gly Gly Gln Arg Leu Leu Cys Ala
 20 25 30

Thr Asp Val Pro Ile Arg Thr Val Ser Ser Ala Ala Ser Gln Gly Leu
 35 40 45

His Met Gln Asn Asp Asp Ala Cys Leu Gly Ala Ala Ser Pro Ser Ala
 50 55 60

Ala Ser Trp Ser Arg Arg Ser Ala Glu Ser Lys Val Ser Leu Cys Trp
 65 70 75 80

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Lys Leu Lys Trp Lys Glu Asp Leu Val Trp Phe Tyr Ser Gln Ser His
85 90 95

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<212> PRT
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<400> 147

Met His Arg Tyr Phe Glu Ser Pro Arg Arg Leu Leu Pro Val His Phe
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Cys Cys Cys Gln Trp Arg Gly Gly Gly Val Asp Phe Glu Cys Leu Leu
20 25 30

Gly Gly Val Trp Asp Arg Cys Arg Lys Val Leu Arg Ala Gln Glu Cys
35 40 45

Glu Trp Pro Arg His Leu Pro Ser Ala Cys Leu Leu Ser Ser Ala Cys
50 55 60

Arg Gly Gln Pro Glu Arg Arg Ala Ala Val Val Gly Ala Gln Asp Pro
65 70 75 80

Thr Glu Pro Pro Arg Leu Ser Arg Ser Leu Ser Gly Ala Ser Pro Phe
85 90 95

Leu Gly Glu Thr Lys Gln Glu Thr Leu Thr Asn Ile Ser Ala Val Asn
100 105 110

Tyr Asp Phe Asp Glu Glu Tyr Phe Ser Asn Thr Ser Glu Leu Ala Lys
115 120 125

Asp Phe Ile Arg Arg Leu Leu Val Lys Asp Pro Lys Arg Arg Met Thr
130 135 140

Ile Ala Gln Ser Leu Glu His Ser Trp Ile Lys Ala Ile Arg Arg Arg
145 150 155 160

Asn Val Arg Gly Glu Asp Ser Gly Arg Lys Pro Glu Arg Arg Arg Leu
165 170 175

Lys Thr Thr Arg Leu Lys Glu Tyr Thr Ile Lys Ser His Ser Ser Leu
180 185 190

Pro Pro Asn Asn Ser Tyr Ala Asp Phe Glu Arg Phe Ser Lys Val Leu
195 200 205

Glu Glu Ala Ala Ala Ala Glu Glu Gly Leu Arg Glu Leu Gln Arg Ser
210 215 220

Arg Arg Leu Cys His Glu Asp Val Glu Ala Leu Ala Ala Ile Tyr Glu
225 230 235 240

Glu Lys Glu Ala Trp Tyr Arg Glu Glu Ser Asp Ser Leu Gly Gln Asp

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245 250 255
 Leu Arg Arg Leu Arg Gln Glu Leu Leu Lys Thr Glu Ala Leu Lys Arg
 260 265 270
 Gln Ala Gln Glu Glu Ala Lys Gly Ala Leu Leu Gly Thr Ser Gly Leu
 275 280 285
 Lys Arg Arg Phe Ser Arg Leu Glu Asn Arg Tyr Glu Ala Leu Ala Lys
 290 295 300
 Gln Val Ala Ser Glu Met Arg Phe Val Gln Asp Leu Val Arg Ala Leu
 305 310 315 320
 Glu Gln Glu Lys Leu Gln Gly Val Glu Cys Gly Leu Arg
 325 330

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<400> 148

Met Leu Lys Glu Phe Leu Glu Ile Pro Phe Pro Thr Ser Pro Glu Cys
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 Thr Leu Gln Pro Lys Ser Gln Gln Pro Thr Gly Lys Glu Ala Glu Glu
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 His Pro Thr Ser Ala Pro Leu Thr His Ser Leu Leu Pro Pro Thr Pro
 35 40 45
 Leu Trp Val Val Ser His Phe Ile Phe Asp Phe Arg Gly Glu Thr Ala
 50 55 60
 Leu His Lys Ala Ala Cys Gln Arg Asn Arg Ala Val Cys Gln Leu Leu
 65 70 75 80
 Val Asp Ala Gly Ala Ser Leu Arg Lys Thr Asp Ser Lys Gly Lys Thr
 85 90 95
 Pro Gln Glu Arg Ala Gln Gln Ala Gly Asp Pro Asp Leu Ala Ala Tyr
 100 105 110
 Leu Glu Ser Arg Gln Asn Tyr Lys Val Ile Gly His Glu Asp Leu Glu
 115 120 125
 Thr Ala Val
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<210> 149
 <211> 272
 <212> PRT
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<400> 149

Met Arg Gly Ala Ala Arg Leu Gly Arg Pro Gly Arg Ser Cys Leu Pro
 1 5 10 15
 Gly Pro Ala Leu Arg Ala Pro Pro Arg Pro Pro Leu Leu Leu Leu Leu
 20 25 30
 Ala Leu Leu Pro Leu Leu Pro Ala Pro Gly Ala Ala Ala Ala Pro Ala
 35 40 45
 Pro Arg Pro Pro Glu Leu Gln Ser Ala Ser Ala Gly Pro Ser Val Ser
 50 55 60
 Leu Tyr Leu Ser Glu Asp Glu Val Arg Arg Leu Ile Gly Leu Asp Ala
 65 70 75 80
 Glu Leu Tyr Tyr Val Arg Asn Asp Leu Ile Ser His Tyr Ala Leu Ser
 85 90 95
 Phe Ser Leu Leu Val Pro Ser Glu Thr Asn Phe Leu His Phe Thr Trp
 100 105 110
 His Ala Lys Ser Lys Val Glu Tyr Lys Leu Gly Phe Gln Val Asp Asn
 115 120 125
 Val Leu Ala Met Asp Met Pro Gln Val Asn Ile Ser Val Gln Gly Glu
 130 135 140
 Val Pro Arg Thr Leu Ser Val Phe Arg Val Glu Leu Ser Cys Thr Gly
 145 150 155 160
 Lys Val Asp Ser Glu Val Met Ile Leu Met Gln Leu Asn Leu Thr Val
 165 170 175
 Asn Ser Ser Lys Asn Phe Thr Val Leu Asn Phe Lys Arg Arg Lys Met
 180 185 190
 Cys Tyr Lys Lys Leu Glu Glu Val Lys Thr Ser Ala Leu Asp Lys Asn
 195 200 205
 Thr Ser Arg Thr Ile Tyr Asp Pro Val His Ala Ala Pro Thr Thr Ser
 210 215 220
 Thr Arg Val Phe Tyr Ile Ser Val Gly Val Cys Cys Ala Val Ile Phe
 225 230 235 240
 Leu Val Ala Ile Ile Leu Ala Val Leu His Leu His Ser Met Lys Arg
 245 250 255
 Ile Glu Leu Asp Asp Arg Tyr Cys Thr Tyr Phe Gly Lys Glu Lys Lys
 260 265 270

<210> 150
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 <212> PRT
 <213> Homo sapiens

<400> 150

Met Pro Gln Val Asn Ile Ser Val Gln Gly Glu Val Pro Arg Thr Leu
1 5 10 15

Ser Val Phe Arg Val Glu Leu Ser Cys Thr Gly Lys Val Asp Ser Glu
20 25 30

Val Met Ile Leu Met Gln Leu Asn Leu Thr Val Asn Ser Ser Lys Asn
35 40 45

Phe Thr Val Leu Asn Phe Lys Arg Arg Lys Met Cys Tyr Lys Lys Leu
50 55 60

Glu Glu Val Lys Thr Ser Ala Leu Asp Lys Asn Thr Ser Arg Thr Ile
65 70 75 80

Tyr Asp Pro Val His Ala Ala Pro Thr Thr Ser Thr Arg Val Phe Tyr
85 90 95

Ile Ser Val Gly Val Cys Cys Ala Val Ile Phe Leu Val Ala Ile Ile
100 105 110

Leu Ala Val Leu His Leu His Ser Met Lys Arg Ile Glu Leu Asp Asp
115 120 125

Ser Ile Ser Ala Ser Ser Ser Ser Gln Gly Leu Ser Gln Pro Ser Thr
130 135 140

Gln Thr Thr Gln Tyr Leu Arg Ala Asp Thr Pro Asn Asn Ala Thr Pro
145 150 155 160

Ile Thr Ser Ser Tyr Tyr Pro Thr Leu Arg Ile Glu Lys Asn Asp Leu
165 170 175

Arg Ser Val Thr Leu Leu Glu Ala Lys Gly Lys Val Lys Asp Ile Ala
180 185 190

Ile Ser Arg Glu Arg Ile Thr Leu Lys Asp Val Leu Gln Glu Gly Thr
195 200 205

Phe Gly Arg Ile Phe His Gly Ile Leu Ile Asp Glu Lys Asp Pro Asn
210 215 220

Lys Glu Lys Gln Ala Phe Val Lys Thr Val Lys Asp Gln Ala Ser Glu
225 230 235 240

Ile Gln Val Thr Met Met Leu Thr Glu Ser Cys Lys Leu Arg Gly Leu
245 250 255

His His Arg Asn Leu Leu Pro Ile Thr His Val Cys Ile Glu Glu Gly
260 265 270

Glu Lys Pro Met Val Ile Leu Pro Tyr Met Asn Trp Gly Asn Leu Lys
275 280 285

Leu Phe Leu Arg Gln Cys Lys Leu Val Glu Ala Asn Asn Pro Gln Ala

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Met Ser Tyr Leu Ala Arg Arg Glu Val Ile His Lys Asp Leu Ala Ala
325 330 335

Arg Asn Cys Val Gly Pro Leu Glu
340

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<210> 151
<211> 141
<212> PRT
<213> Homo sapiens
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<400> 151

Met Glu Ala Ile Arg Thr Asp Asn Gln Asn Phe Ala Ser Gln Leu Arg
1 5 10 15

Glu Ala Glu Ala Arg Asn Arg Asp Leu Glu Ala His Val Arg Gln Leu
20 25 30

Gln Glu Arg Met Glu Leu Leu Gln Ala Glu Gly Ala Thr Ala Val Thr
35 40 45

Gly Val Pro Ser Pro Arg Ala Thr Asp Pro Pro Ser His Leu Asp Gly
50 55 60

Pro Pro Ala Val Ala Val Gly Gln Cys Pro Leu Val Gly Pro Gly Pro
65 70 75 80

Met His Arg Arg His Leu Leu Leu Pro Ala Arg Val Pro Arg Pro Gly
85 90 95

Leu Ser Glu Ala Leu Ser Leu Leu Leu Phe Ala Val Val Leu Ser Arg
100 105 110

Ala Ala Ala Leu Gly Cys Ile Gly Leu Val Ala His Ala Gly Gln Leu
115 120 125

Thr Ala Val Trp Arg Arg Pro Gly Ala Ala Arg Ala Pro
130 135 140

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<210> 152
<211> 106
<212> PRT
<213> Homo sapiens
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<400> 152

Met Glu Leu Leu Gln Ala Glu Gly Ala Thr Ala Val Thr Gly Val Pro
1 5 10 15

Ser Pro Arg Ala Thr Asp Pro Pro Ser His Leu Asp Gly Pro Pro Ala
20 25 30

Val Ala Val Gly Gln Cys Pro Leu Val Gly Pro Gly Pro Met His Arg
35 40 45

Arg His Leu Leu Leu Pro Ala Arg Val Pro Arg Pro Gly Leu Ser Glu
50 55 60

Ala Leu Ser Leu Leu Leu Phe Ala Val Val Leu Ser Arg Ala Ala Ala
65 70 75 80

Leu Gly Cys Ile Gly Leu Val Ala His Ala Gly Gln Leu Thr Ala Val
85 90 95

Trp Arg Arg Pro Gly Ala Ala Arg Ala Pro
100 105

<210> 153

<211> 50

<212> PRT

<213> Homo sapiens

<400> 153

Met Val Asn Leu Ser His Glu Asp Phe Glu Phe Ile Ser Gly Thr Arg
1 5 10 15

Met Arg Lys Leu Ala Arg Glu Gly Gln Lys Pro Pro Glu Gly Phe Met
20 25 30

Ala Pro Lys Ala Trp Thr Val Leu Thr Glu Tyr Tyr Lys Ser Leu Glu
35 40 45

Lys Ala
50

<210> 154

<211> 238

<212> PRT

<213> Homo sapiens

<400> 154

Met Ala Arg Thr Thr Ser Gln Leu Tyr Asp Ala Val Pro Ile Gln Ser
1 5 10 15

Ser Val Val Leu Cys Ser Cys Pro Ser Pro Ser Met Val Arg Thr Gln
20 25 30

Thr Glu Ser Ser Thr Pro Pro Gly Ile Pro Gly Gly Ser Arg Gln Gly
35 40 45

Pro Ala Met Asp Gly Thr Ala Ala Glu Pro Arg Pro Gly Ala Gly Ser
50 55 60

Leu Gln His Ala Gln Pro Pro Pro Gln Pro Arg Lys Lys Arg Pro Glu
65 70 75 80

Asp Phe Lys Phe Gly Lys Ile Leu Gly Glu Gly Ser Phe Ser Thr Val
85 90 95

Val Leu Ala Arg Glu Leu Ala Thr Ser Arg Glu Tyr Ala Ile Lys Ile
100 105 110

Leu Glu Lys Arg His Ile Ile Lys Glu Asn Lys Val Pro Tyr Val Thr
115 120 125

Arg Glu Arg Asp Val Met Ser Arg Leu Asp His Pro Phe Phe Val Lys
130 135 140

Leu Tyr Phe Thr Phe Gln Asp Asp Glu Lys Leu Tyr Phe Gly Leu Ser
145 150 155 160

Tyr Ala Lys Asn Gly Glu Leu Leu Lys Tyr Ile Arg Lys Ile Gly Ser
165 170 175

Phe Asp Glu Thr Cys Thr Arg Phe Tyr Thr Ala Glu Ile Val Ser Ala
180 185 190

Leu Glu Tyr Leu His Gly Lys Gly Ile Ile His Arg Asp Leu Lys Pro
195 200 205

Glu Asn Ile Leu Leu Asn Glu Asp Met His Ile Gln Ile Thr Asp Phe
210 215 220

Gly Thr Ala Lys Val Leu Ser Pro Glu Ser Lys Gln Val Cys
225 230 235

<210> 155

<211> 73

<212> PRT

<213> Homo sapiens

<400> 155

Met Ser Asp Val Thr Ile Val Lys Glu Gly Trp Val Gln Lys Arg Gly
1 5 10 15

Glu Tyr Ile Lys Asn Trp Arg Pro Arg Tyr Phe Leu Leu Lys Thr Asp
20 25 30

Gly Ser Phe Ile Gly Tyr Lys Glu Lys Pro Gln Asp Val Asp Leu Pro
35 40 45

Tyr Pro Leu Asn Asn Phe Ser Val Ala Ser Ser Val Met Phe Arg Tyr
50 55 60

Leu Gln Asn Leu Thr Leu Asn Gln Val
65 70

<210> 156

<211> 213

<212> PRT

<213> Homo sapiens

<400> 156

Met Ser Asp Val Thr Ile Val Lys Glu Gly Trp Val Gln Lys Arg Gly
1 5 10 15

Glu Tyr Ile Lys Asn Trp Arg Pro Arg Tyr Phe Leu Leu Lys Thr Asp
20 25 30

Gly Ser Phe Ile Gly Tyr Lys Glu Lys Pro Gln Asp Val Asp Leu Pro
35 40 45

Tyr Pro Leu Asn Asn Phe Ser Val Ala Lys Cys Gln Leu Met Lys Thr
50 55 60

Glu Arg Pro Lys Pro Asn Thr Phe Ile Ile Arg Cys Leu Gln Trp Thr
65 70 75 80

Thr Val Ile Glu Arg Thr Phe His Val Asp Thr Pro Glu Glu Arg Glu
85 90 95

Glu Trp Thr Glu Ala Ile Gln Ala Val Ala Asp Arg Leu Gln Arg Gln
100 105 110

Glu Glu Glu Arg Met Asn Cys Ser Pro Thr Ser Gln Ile Asp Asn Ile
115 120 125

Gly Glu Glu Glu Met Asp Ala Ser Thr Thr His His Lys Arg Lys Thr
130 135 140

Met Asn Asp Phe Asp Tyr Leu Lys Leu Leu Gly Lys Gly Thr Phe Gly
145 150 155 160

Lys Val Ile Leu Val Arg Glu Lys Ala Ser Gly Lys Tyr Tyr Ala Met
165 170 175

Lys Ile Leu Lys Lys Glu Val Ile Ile Ala Lys Val Thr Asp Leu Leu
180 185 190

Lys Leu Ile Thr Lys Phe Leu Phe Ala Val Cys Met Cys Leu Trp Ala
195 200 205

His Glu Phe Thr Cys
210

<210> 157

<211> 352

<212> PRT

<213> Homo sapiens

<400> 157

Met Gly Gly Lys Pro Ala Asn Arg Met Met Pro Tyr Pro Phe Pro Ser
1 5 10 15

Gly Thr Trp Lys Val Lys Trp Val Ala Ser Arg Asn Ala Phe Lys Pro
20 25 30

Arg Ile Gly Ile Leu Ile Lys Thr Leu Ile Tyr Ser Ser Gln Phe Pro
 35 40 45
 Leu Gly Asn Leu Glu Lys Ile Ser Gln Leu Leu Ser Lys Ser Ala Gln
 50 55 60
 Cys Pro Leu Arg Val His Tyr Leu Ser Ser Gln Tyr Gly Asp Glu Arg
 65 70 75 80
 Cys Phe Met Phe Val Leu Ile Ser Pro Thr Lys Ser Val Ile Ile Thr
 85 90 95
 Ile Leu Ser Leu Leu Phe Thr Leu Gln Leu Phe Phe His Leu Ser Arg
 100 105 110
 Glu Arg Val Phe Ser Glu Asp Arg Thr Arg Phe Tyr Gly Ala Glu Ile
 115 120 125
 Val Ser Ala Leu Asp Tyr Leu His Ser Gly Lys Ile Val Tyr Arg Asp
 130 135 140
 Leu Lys Leu Glu Asn Leu Met Leu Asp Lys Asp Gly His Ile Lys Ile
 145 150 155 160
 Thr Asp Phe Gly Leu Cys Lys Glu Gly Ile Thr Asp Ala Ala Thr Met
 165 170 175
 Lys Thr Phe Cys Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val Leu Glu
 180 185 190
 Asp Asn Asp Tyr Gly Arg Ala Val Asp Trp Trp Gly Leu Gly Val Val
 195 200 205
 Met Tyr Glu Met Met Cys Gly Arg Leu Pro Phe Tyr Asn Gln Asp His
 210 215 220
 Glu Lys Leu Phe Glu Leu Ile Leu Met Glu Asp Ile Lys Phe Pro Arg
 225 230 235 240
 Thr Leu Ser Ser Asp Ala Lys Ser Leu Leu Ser Gly Leu Leu Ile Lys
 245 250 255
 Asp Pro Asn Lys Arg Leu Gly Gly Gly Pro Asp Asp Ala Lys Glu Ile
 260 265 270
 Met Arg His Ser Phe Phe Ser Gly Val Asn Trp Gln Asp Val Tyr Asp
 275 280 285
 Lys Lys Leu Val Pro Pro Phe Lys Pro Gln Val Thr Ser Glu Thr Asp
 290 295 300
 Thr Arg Tyr Phe Asp Glu Glu Phe Thr Ala Gln Thr Ile Thr Ile Thr
 305 310 315 320
 Pro Pro Glu Lys Tyr Asp Glu Asp Gly Met Asp Cys Met Asp Asn Glu
 325 330 335

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Arg Arg Pro His Phe Pro Gln Phe Ser Tyr Ser Ala Ser Gly Arg Glu
340 345 350

<210> 158
<211> 132
<212> PRT
<213> Homo sapiens

<400> 158

Met Glu Leu Leu Arg Thr Ile Thr Tyr Gln Pro Ala Ala Ser Thr Lys
1 5 10 15

Met Cys Glu Gln Ala Leu Gly Lys Gly Cys Gly Gly Asn Ser Lys Lys
20 25 30

Lys Arg Pro Pro Gln Pro Pro Glu Glu Ser Gln Pro Pro Gln Ser Gln
35 40 45

Ala Gln Val Pro Pro Ala Ala Pro His His His His His His Ser His
50 55 60

Ser Gly Pro Glu Ile Ser Arg Ile Ile Val Asp Pro Thr Thr Gly Lys
65 70 75 80

Arg Tyr Cys Arg Gly Lys Val Leu Gly Lys Gly Gly Phe Ala Lys Cys
85 90 95

Tyr Glu Met Thr Asp Leu Thr Asn Asn Lys Val Tyr Ala Ala Lys Ile
100 105 110

Ile Pro His Ser Arg Val Ala Lys Pro His Gln Arg Glu Lys Val Cys
115 120 125

Met Thr Leu Glu
130

<210> 159
<211> 192
<212> PRT
<213> Homo sapiens

<400> 159

Met Glu Leu Leu Arg Thr Ile Thr Tyr Gln Pro Ala Ala Ser Thr Lys
1 5 10 15

Met Cys Glu Gln Ala Leu Gly Lys Gly Cys Gly Gly Asn Ser Lys Lys
20 25 30

Lys Arg Pro Pro Gln Pro Pro Glu Glu Ser Gln Pro Pro Gln Ser Gln
35 40 45

Ala Gln Val Pro Pro Ala Ala Pro His His His His His His Ser His
50 55 60

Ser Gly Pro Glu Ile Ser Arg Ile Ile Val Asp Pro Thr Thr Gly Lys

Phe Tyr His Tyr Phe Glu Asp Lys Glu Asn Ile Tyr Ile Leu Leu Glu
145 150 155 160

Tyr Cys Ser Arg Arg Leu Gln Gly Ser Gln Lys Asn Asp Leu Glu Tyr
165 170 175

Val Glu Glu Asp Gly His Val Val Val Arg Lys Gln Phe Pro Cys Gly
180 185 190

Leu Leu Asp Trp Val Glu Pro Glu Gln Ala Lys Ala Tyr Ser Ser
195 200 205

<210> 161

<211> 337

<212> PRT

<213> Homo sapiens

<400> 161

Met Ser Asp Lys Asp Leu Arg Thr Ala Ala Ala Gly Gly Gly His Leu
1 5 10 15

Val Ala Ile Leu Thr Val Phe Ile Pro Gln Lys Asp Leu Val Glu Glu
20 25 30

Glu Ala Glu Glu Ala Gly Val Ala Leu Arg Ser Thr Gln Ser Thr Leu
35 40 45

Gln Ala Gly Leu Ala Ala Asp Ala Trp Ala Ala Pro Ile Ala Met Gln
50 55 60

Ile Tyr Lys Lys His Leu Asp Pro Arg Pro Gly Pro Cys His Leu Ser
65 70 75 80

Trp Ala Trp Ala Trp Ala Ser Trp Pro Ala Ala Ala Cys Thr Ala Gly
85 90 95

Pro Lys Gly Arg Pro Pro Met Thr Gln Val Tyr Glu Arg Leu Glu Lys
100 105 110

Leu Gln Ala Val Val Ala Gly Val Pro Gly His Leu Glu Ala Ala Ser
115 120 125

Cys Ile Pro Phe Pro Gln Glu Asn Ser Tyr Val Ser Ser Thr Gly Arg
130 135 140

Ala Ser Ala Gln Ala Ala Glu Gln Leu Gln Arg Gly Pro Asn Gln Pro
145 150 155 160

Val Glu Ser Asp Glu Ser Leu Gly Gly Leu Ser Ala Ala Leu Arg Ser
165 170 175

Trp His Leu Thr Pro Ser Cys Pro Leu Asp Pro Ala Pro Leu Arg Glu
180 185 190

Ala Gly Cys Pro Gln Gly Asp Thr Ala Gly Glu Ser Ser Trp Gly Ser
195 200 205

Gly Pro Gly Ser Arg Pro Thr Ala Val Glu Gly Leu Ala Leu Gly Ser
210 215 220

Ser Ala Ser Ser Ser Ser Glu Pro Pro Gln Ile Ile Ile Asn Pro Ala
225 230 235 240

Arg Gln Lys Met Val Gln Lys Leu Ala Leu Tyr Glu Asp Gly Ala Leu
245 250 255

Asp Ser Leu Gln Leu Leu Ser Ser Ser Ser Leu Pro Gly Leu Gly Leu
260 265 270

Glu Gln Asp Arg Gln Gly Pro Lys Lys Val Met Asn Phe Arg Ala Asp
275 280 285

Val Phe Thr Trp Ala Asp Pro Pro Asn Pro Glu Val Lys Val Leu Met
290 295 300

Val Arg Ser Ser His Gly Ala Arg Val Leu Ser Thr Leu Pro Ala Val
305 310 315 320

Gly Val Gly Ala His Ala Arg Trp Gly Glu Lys Glu Val Ala Leu Leu
325 330 335

Phe

<210> 162

<211> 122

<212> PRT

<213> Homo sapiens

<400> 162

Met Gly His Ala Leu Cys Val Cys Ser Arg Gly Thr Val Ile Ile Asp
1 5 10 15

Asn Lys Arg Tyr Leu Phe Ile Gln Lys Leu Gly Glu Gly Gly Phe Ser
20 25 30

Tyr Val Asp Leu Val Glu Gly Leu His Asp Gly His Phe Tyr Ala Leu
35 40 45

Lys Arg Ile Leu Cys His Glu Gln Gln Asp Arg Glu Glu Ala Gln Arg
50 55 60

Glu Ala Asp Met His Arg Leu Phe Asn His Pro Asn Ile Leu Arg Leu
65 70 75 80

Val Ala Tyr Cys Leu Arg Glu Arg Gly Ala Lys His Glu Ala Trp Leu
85 90 95

Leu Leu Pro Phe Phe Lys Val Arg Lys Thr Pro Val Tyr Gly Gly Gly
100 105 110

Cys Ser Arg Ala Thr Tyr Ser Arg Ala Val

115

120

<210> 163
 <211> 842
 <212> PRT
 <213> Homo sapiens

<400> 163

Met Glu Arg Ala Ile Ser Pro Gly Leu Leu Val Arg Ala Leu Leu Leu
 1 5 10 15

Leu Leu Leu Leu Gly Leu Ala Ala Arg Thr Val Ala Ala Gly Arg Ala
 20 25 30

Arg Gly Leu Pro Ala Pro Thr Ala Glu Ala Ala Phe Gly Leu Gly Ala
 35 40 45

Ala Ala Ala Pro Thr Ser Ala Thr Arg Val Pro Ala Ala Gly Ala Val
 50 55 60

Ala Ala Ala Glu Val Thr Val Glu Asp Ala Glu Ala Leu Pro Ala Ala
 65 70 75 80

Ala Gly Glu Gln Glu Pro Arg Gly Pro Glu Pro Asp Asp Glu Thr Glu
 85 90 95

Leu Arg Pro Arg Gly Arg Ser Leu Val Ile Ile Ser Thr Leu Asp Gly
 100 105 110

Arg Ile Ala Ala Leu Asp Pro Glu Asn His Gly Lys Lys Gln Trp Asp
 115 120 125

Leu Asp Val Gly Ser Gly Ser Leu Val Ser Ser Ser Leu Ser Lys Pro
 130 135 140

Glu Val Phe Gly Asn Lys Met Ile Ile Pro Ser Leu Asp Gly Ala Leu
 145 150 155 160

Phe Gln Trp Asp Arg Asp Arg Glu Ser Met Glu Thr Val Pro Phe Thr
 165 170 175

Val Glu Ser Leu Leu Glu Ser Ser Tyr Lys Phe Gly Asp Asp Val Val
 180 185 190

Leu Val Gly Gly Lys Ser Leu Thr Thr Tyr Gly Leu Ser Ala Tyr Ser
 195 200 205

Gly Lys Val Arg Tyr Ile Cys Ser Ala Leu Gly Cys Arg Gln Trp Asp
 210 215 220

Ser Asp Glu Met Glu Gln Glu Glu Asp Ile Leu Leu Leu Gln Arg Thr
 225 230 235 240

Gln Lys Thr Val Arg Ala Val Gly Pro Arg Ser Gly Asn Glu Lys Trp
 245 250 255

115 120 125 130 135 140 145 150 155 160 165 170 175 180 185 190 195 200 205 210 215 220 225 230 235 240 245 250 255

Asn	Phe	Ser	Val	Gly	His	Phe	Glu	Leu	Arg	Tyr	Ile	Pro	Asp	Met	Glu	
			260					265					270			
Thr	Arg	Ala	Gly	Phe	Ile	Glu	Ser	Thr	Phe	Lys	Pro	Asn	Glu	Asn	Thr	
		275					280					285				
Glu	Glu	Ser	Lys	Ile	Ile	Ser	Asp	Val	Glu	Glu	Gln	Glu	Ala	Ala	Ile	
		290				295					300					
Met	Asp	Ile	Val	Ile	Lys	Val	Ser	Val	Ala	Asp	Trp	Lys	Val	Met	Ala	
305					310					315					320	
Phe	Ser	Lys	Lys	Gly	Gly	His	Leu	Glu	Trp	Glu	Tyr	Gln	Phe	Cys	Thr	
				325					330					335		
Pro	Ile	Ala	Ser	Ala	Trp	Leu	Leu	Lys	Asp	Gly	Lys	Val	Ile	Pro	Ile	
			340					345					350			
Ser	Leu	Phe	Asp	Asp	Thr	Ser	Tyr	Thr	Ser	Asn	Asp	Asp	Val	Leu	Glu	
		355					360					365				
Asp	Glu	Glu	Asp	Ile	Val	Glu	Ala	Ala	Arg	Gly	Ala	Thr	Glu	Asn	Ser	
		370				375					380					
Val	Tyr	Leu	Gly	Met	Tyr	Arg	Gly	Gln	Leu	Tyr	Leu	Gln	Ser	Ser	Val	
385					390					395					400	
Arg	Ile	Ser	Glu	Lys	Phe	Pro	Ser	Ser	Pro	Lys	Ala	Leu	Glu	Ser	Val	
				405					410						415	
Thr	Asn	Glu	Asn	Ala	Ile	Ile	Pro	Leu	Pro	Thr	Ile	Lys	Trp	Lys	Pro	
			420					425					430			
Leu	Ile	His	Ser	Pro	Ser	Arg	Thr	Pro	Val	Leu	Val	Gly	Ser	Asp	Glu	
		435					440					445				
Phe	Asp	Lys	Cys	Leu	Ser	Asn	Asp	Lys	Phe	Ser	His	Glu	Glu	Tyr	Ser	
		450				455					460					
Asn	Gly	Ala	Leu	Ser	Ile	Leu	Gln	Tyr	Pro	Tyr	Asp	Asn	Gly	Tyr	Tyr	
465					470					475					480	
Leu	Pro	Tyr	Tyr	Lys	Arg	Glu	Arg	Asn	Lys	Arg	Ser	Thr	Gln	Ile	Thr	
				485				490						495		
Val	Arg	Phe	Leu	Asp	Asn	Pro	His	Tyr	Asn	Lys	Asn	Ile	Arg	Lys	Lys	
			500					505					510			
Asp	Pro	Val	Leu	Leu	Leu	His	Trp	Trp	Lys	Glu	Ile	Val	Ala	Thr	Ile	
		515					520					525				
Leu	Phe	Cys	Ile	Ile	Ala	Thr	Thr	Phe	Ile	Val	Arg	Arg	Leu	Phe	His	
		530				535					540					
Pro	His	Pro	His	Arg	Gln	Arg	Lys	Glu	Ser	Glu	Thr	Gln	Cys	Gln	Thr	
545					550					555					560	

Glu Asn Lys Tyr Asp Ser Val Ser Gly Glu Ala Asn Asp Ser Ser Trp
 565 570 575
 Asn Asp Ile Lys Asn Ser Gly Tyr Ile Ser Arg Tyr Leu Thr Asp Phe
 580 585 590
 Glu Pro Ile Gln Cys Leu Gly Arg Gly Gly Phe Gly Val Val Phe Glu
 595 600 605
 Ala Lys Asn Lys Val Asp Asp Cys Asn Tyr Ala Ile Lys Arg Ile Arg
 610 615 620
 Leu Pro Asn Arg Glu Leu Ala Arg Glu Lys Val Met Arg Glu Val Lys
 625 630 635 640
 Ala Leu Ala Lys Leu Glu His Pro Gly Ile Val Arg Tyr Phe Asn Ala
 645 650 655
 Trp Leu Glu Ala Pro Pro Glu Lys Trp Gln Glu Lys Met Asp Glu Ile
 660 665 670
 Trp Leu Lys Asp Glu Ser Thr Asp Trp Pro Leu Ser Ser Pro Ser Pro
 675 680 685
 Met Asp Ala Pro Ser Val Lys Ile Arg Arg Met Asp Pro Phe Ser Thr
 690 695 700
 Lys Glu His Ile Glu Ile Ile Ala Pro Ser Pro Gln Arg Ser Arg Ser
 705 710 715 720
 Phe Ser Val Gly Ile Ser Cys Asp Gln Thr Ser Ser Ser Glu Ser Gln
 725 730 735
 Phe Ser Pro Leu Glu Phe Ser Gly Met Asp His Glu Asp Ile Ser Glu
 740 745 750
 Ser Val Asp Ala Ala Tyr Asn Leu Gln Asp Ser Cys Leu Thr Asp Cys
 755 760 765
 Asp Val Glu Asp Gly Thr Met Asp Gly Asn Asp Glu Gly His Ser Phe
 770 775 780
 Glu Leu Cys Pro Ser Glu Ala Ser Pro Tyr Val Arg Ser Arg Glu Arg
 785 790 795 800
 Thr Ser Ser Ser Ile Val Phe Glu Asp Ser Gly Cys Asp Asn Ala Ser
 805 810 815
 Ser Lys Glu Glu Pro Lys Thr Asn Arg Leu His Ile Gly Asn His Cys
 820 825 830
 Ala Asn Lys Leu Thr Val Thr Val Leu Phe
 835 840

<210> 164
 <211> 743
 <212> PRT

Pro Cys Ala Pro Ser Leu Ala Gln Leu Ala Met Asp Ala Cys Ser Leu
 290 295 300
 Leu Asp Glu Thr Pro Pro Gln Ser Pro Thr Arg Ala Leu Pro Arg Pro
 305 310 315 320
 Leu His Pro Thr Pro Val Val Asp Trp Asp Ala Arg Pro Leu Pro Pro
 325 330 335
 Pro Pro Ala Tyr Asp Asp Val Ala Gln Asp Glu Asp Asp Phe Glu Ile
 340 345 350
 Cys Ser Ile Asn Ser Thr Leu Val Gly Ala Gly Val Pro Ala Gly Pro
 355 360 365
 Ser Gln Gly Gln Thr Asn Tyr Ala Phe Val Pro Glu Gln Ala Arg Pro
 370 375 380
 Pro Pro Pro Leu Glu Asp Asn Leu Phe Leu Pro Pro Gln Gly Gly Gly
 385 390 395 400
 Lys Pro Pro Ser Ser Ala Gln Thr Ala Glu Ile Phe Gln Ala Leu Gln
 405 410 415
 Gln Glu Cys Met Arg Gln Leu Gln Ala Pro Ala Gly Ser Pro Ala Pro
 420 425 430
 Ser Pro Ser Pro Gly Gly Asp Asp Lys Pro Gln Val Pro Pro Arg Val
 435 440 445
 Pro Ile Pro Pro Arg Pro Thr Arg Pro His Val Gln Leu Ser Pro Ala
 450 455 460
 Pro Pro Gly Glu Glu Glu Thr Ser Gln Trp Pro Gly Pro Ala Ser Pro
 465 470 475 480
 Pro Arg Val Pro Pro Arg Glu Pro Leu Ser Pro Gln Gly Ser Arg Thr
 485 490 495
 Pro Ser Pro Leu Val Pro Pro Gly Ser Ser Pro Leu Pro Pro Arg Leu
 500 505 510
 Ser Ser Ser Pro Gly Lys Thr Met Pro Thr Thr Gln Ser Phe Ala Ser
 515 520 525
 Asp Pro Lys Tyr Ala Thr Pro Gln Val Ile Gln Ala Pro Gly Pro Arg
 530 535 540
 Ala Gly Pro Cys Ile Leu Pro Ile Val Arg Asp Gly Lys Lys Val Ser
 545 550 555 560
 Ser Thr His Tyr Tyr Leu Leu Pro Glu Arg Pro Ser Tyr Leu Glu Arg
 565 570 575
 Tyr Gln Arg Phe Leu Arg Glu Ala Gln Ser Pro Glu Glu Pro Thr Pro
 580 585 590

Leu Pro Val Pro Leu Leu Leu Pro Pro Pro Ser Thr Pro Ala Pro Ala
595 600 605

Ala Pro Thr Ala Thr Val Arg Pro Met Pro Gln Ala Ala Leu Asp Pro
610 615 620

Lys Ala Asn Phe Ser Thr Asn Asn Ser Asn Pro Gly Ala Arg Pro Pro
625 630 635 640

Pro Pro Arg Ala Thr Ala Arg Leu Pro Gln Arg Gly Cys Pro Gly Asp
645 650 655

Gly Pro Glu Ala Gly Arg Pro Ala Asp Lys Ile Gln Met Ala Met Val
660 665 670

His Gly Val Thr Thr Glu Glu Cys Gln Ala Ala Leu Gln Cys His Gly
675 680 685

Trp Ser Val Gln Arg Ala Cys Pro Val Ser Glu Gly Gly Ala Ala Leu
690 695 700

Arg Ala Gly Ser Ala Ala Gln Arg Glu Cys His Lys Val Leu Glu Met
705 710 715 720

Phe Asp Trp Asn Leu Glu Gln Ala Gly Cys His Leu Leu Gly Ser Trp
725 730 735

Gly Pro Ala His His Lys Arg
740

<210> 165

<211> 604

<212> PRT

<213> Homo sapiens

<400> 165

Met Ala Ser Asn Pro Glu Arg Gly Glu Ile Leu Leu Thr Glu Leu Gln
1 5 10 15

Gly Asp Ser Arg Ser Leu Pro Phe Ser Glu Asn Val Ser Ala Val Gln
20 25 30

Lys Leu Asp Phe Ser Asp Thr Met Val Gln Gln Lys Leu Asp Asp Ile
35 40 45

Lys Asp Arg Ile Lys Arg Glu Ile Arg Lys Glu Leu Lys Ile Lys Glu
50 55 60

Gly Ala Glu Asn Leu Arg Lys Val Thr Thr Asp Lys Lys Ser Leu Ala
65 70 75 80

Tyr Val Asp Asn Ile Leu Lys Lys Ser Asn Lys Lys Leu Glu Glu Leu
85 90 95

His His Lys Leu Gln Glu Leu Asn Ala His Ile Val Val Ser Asp Pro

100	105	110
Glu Asp Ile Thr Asp Cys Pro Arg Thr Pro Asp Thr Pro Asn Asn Asp		
115	120	125
Pro Arg Cys Ser Thr Ser Asn Asn Arg Leu Lys Ala Leu Gln Lys Gln		
130	135	140
Leu Asp Ile Glu Leu Lys Val Lys Gln Gly Ala Glu Asn Met Ile Gln		
145	150	155
Met Tyr Ser Asn Gly Ser Ser Lys Asp Arg Lys Leu His Gly Thr Ala		
165	170	175
Gln Gln Leu Leu Gln Asp Ser Lys Thr Lys Ile Glu Val Ile Arg Met		
180	185	190
Gln Ile Leu Gln Ala Val Gln Thr Asn Glu Leu Ala Phe Asp Asn Ala		
195	200	205
Lys Pro Val Ile Ser Pro Leu Glu Leu Arg Met Glu Glu Leu Arg His		
210	215	220
His Phe Arg Ile Glu Phe Ala Val Ala Glu Gly Ala Lys Asn Val Met		
225	230	235
Lys Leu Leu Gly Ser Gly Lys Val Thr Asp Arg Lys Ala Leu Ser Glu		
245	250	255
Ala Gln Ala Arg Phe Asn Glu Ser Ser Gln Lys Leu Asp Leu Leu Lys		
260	265	270
Tyr Ser Leu Glu Gln Arg Leu Asn Glu Val Pro Lys Asn His Pro Lys		
275	280	285
Ser Arg Ile Ile Ile Glu Glu Leu Ser Leu Val Ala Ala Ser Pro Thr		
290	295	300
Leu Ser Pro Arg Gln Ser Met Ile Ser Thr Gln Asn Gln Tyr Ser Thr		
305	310	315
Leu Ser Lys Pro Ala Ala Leu Thr Gly Thr Leu Glu Val Arg Leu Met		
325	330	335
Gly Cys Gln Asp Ile Leu Glu Asn Val Pro Gly Arg Ser Lys Ala Thr		
340	345	350
Ser Val Ala Leu Pro Gly Trp Ser Pro Ser Glu Thr Arg Ser Ser Phe		
355	360	365
Met Ser Arg Thr Ser Lys Ser Lys Ser Gly Ser Ser Arg Asn Leu Leu		
370	375	380
Lys Thr Asp Asp Leu Ser Asn Asp Val Cys Ala Val Leu Lys Leu Asp		
385	390	395
Asn Thr Val Val Gly Gln Thr Ser Trp Lys Pro Ile Ser Asn Gln Ser		

100 105 110
 115 120 125
 130 135 140
 145 150 155
 165 170 175
 180 185 190
 195 200 205
 210 215 220
 225 230 235
 245 250 255
 260 265 270
 275 280 285
 290 295 300
 305 310 315
 325 330 335
 340 345 350
 355 360 365
 370 375 380
 385 390 395
 400

405	410	415
Trp Asp Gln Lys Phe Thr Leu Glu Leu Asp Arg Ser Arg Glu Leu Glu		
420	425	430
Ile Ser Val Tyr Trp Arg Asp Trp Arg Ser Leu Cys Ala Val Lys Phe		
435	440	445
Leu Arg Leu Glu Asp Phe Leu Asp Asn Gln Arg His Gly Met Cys Leu		
450	455	460
Tyr Leu Glu Pro Gln Gly Thr Leu Phe Ala Glu Val Thr Phe Phe Asn		
465	470	475
Pro Val Ile Glu Arg Arg Pro Lys Leu Gln Arg Gln Lys Lys Ile Phe		
485	490	495
Ser Lys Gln Gln Gly Lys Thr Phe Leu Arg Ala Pro Gln Met Asn Ile		
500	505	510
Asn Ile Ala Thr Trp Gly Arg Leu Val Arg Arg Ala Ile Pro Thr Val		
515	520	525
Asn His Ser Gly Thr Phe Ser Pro Gln Ala Pro Val Pro Thr Thr Val		
530	535	540
Pro Val Val Asp Val Arg Ile Pro Gln Leu Ala Pro Pro Ala Arg Tyr		
545	550	555
Val Ser Glu Ile Leu Ser Ile Ser Tyr Thr Lys Leu Leu Gly His Ser		
565	570	575
Tyr Val Leu Ile Ile Ala Gly Val Leu Ser Leu Ala Phe Phe Pro Ser		
580	585	590
Ser Ile Leu Lys Val Val Phe Cys Leu Leu Lys Lys		
595	600	

<210> 166
 <211> 613
 <212> PRT
 <213> Homo sapiens

<400> 166

Met Ala Ser Asn Pro Glu Arg Gly Glu Ile Leu Leu Thr Glu Leu Gln		
1	5	10
Gly Asp Ser Arg Ser Leu Pro Phe Ser Glu Asn Val Ser Ala Val Gln		
20	25	30
Lys Leu Asp Phe Ser Asp Thr Met Val Gln Gln Lys Leu Asp Asp Ile		
35	40	45
Lys Asp Arg Ile Lys Arg Glu Ile Arg Lys Glu Leu Lys Ile Lys Glu		
50	55	60

Gly Ala Glu Asn Leu Arg Lys Val Thr Thr Asp Lys Lys Ser Leu Ala
 65 70 75 80
 Tyr Val Asp Asn Ile Leu Lys Lys Ser Asn Lys Lys Leu Glu Glu Leu
 85 90 95
 His His Lys Leu Gln Glu Leu Asn Ala His Ile Val Val Ser Asp Pro
 100 105 110
 Glu Asp Ile Thr Asp Cys Pro Arg Thr Pro Asp Thr Pro Asn Asn Asp
 115 120 125
 Pro Arg Cys Ser Thr Ser Asn Asn Arg Leu Lys Ala Leu Gln Lys Gln
 130 135 140
 Leu Asp Ile Glu Leu Lys Val Lys Gln Gly Ala Glu Asn Met Ile Gln
 145 150 155 160
 Met Tyr Ser Asn Gly Ser Ser Lys Asp Arg Lys Leu His Gly Thr Ala
 165 170 175
 Gln Gln Leu Leu Gln Asp Ser Lys Thr Lys Ile Glu Val Ile Arg Met
 180 185 190
 Gln Ile Leu Gln Ala Val Gln Thr Asn Glu Leu Ala Phe Asp Asn Ala
 195 200 205
 Lys Pro Val Ile Ser Pro Leu Glu Leu Arg Met Glu Glu Leu Arg His
 210 215 220
 His Phe Arg Ile Glu Phe Ala Val Ala Glu Gly Ala Lys Asn Val Met
 225 230 235 240
 Lys Leu Leu Gly Ser Gly Lys Val Thr Asp Arg Lys Ala Leu Ser Glu
 245 250 255
 Ala Gln Ala Arg Phe Asn Glu Ser Ser Gln Lys Leu Asp Leu Leu Lys
 260 265 270
 Tyr Ser Leu Glu Gln Arg Leu Asn Glu Val Pro Lys Asn His Pro Lys
 275 280 285
 Ser Arg Ile Ile Ile Glu Glu Leu Ser Leu Val Ala Ala Ser Pro Thr
 290 295 300
 Leu Ser Pro Arg Gln Ser Met Ile Ser Thr Gln Asn Gln Tyr Ser Thr
 305 310 315 320
 Leu Ser Lys Pro Ala Ala Leu Thr Gly Thr Leu Glu Val Arg Leu Met
 325 330 335
 Gly Cys Gln Asp Ile Leu Glu Asn Val Pro Gly Arg Ser Lys Ala Thr
 340 345 350
 Ser Val Ala Leu Pro Gly Trp Ser Pro Ser Glu Thr Arg Ser Ser Phe
 355 360 365

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Met Ser Arg Thr Ser Lys Ser Lys Ser Gly Ser Ser Arg Asn Leu Leu
 370 375 380
 Lys Thr Asp Asp Leu Ser Asn Asp Val Cys Ala Val Leu Lys Leu Asp
 385 390 395 400
 Asn Thr Val Val Gly Gln Thr Ser Trp Lys Pro Ile Ser Asn Gln Ser
 405 410 415
 Trp Asp Gln Lys Phe Thr Leu Glu Leu Asp Arg Ser Arg Glu Leu Glu
 420 425 430
 Ile Ser Val Tyr Trp Arg Asp Trp Arg Ser Leu Cys Ala Val Lys Phe
 435 440 445
 Leu Arg Leu Glu Asp Phe Leu Asp Asn Gln Arg His Gly Met Cys Leu
 450 455 460
 Tyr Leu Glu Pro Gln Gly Thr Leu Phe Ala Glu Val Thr Phe Phe Asn
 465 470 475 480
 Pro Val Ile Glu Arg Arg Pro Lys Leu Gln Arg Gln Lys Lys Ile Phe
 485 490 495
 Ser Lys Gln Gln Gly Lys Thr Phe Leu Arg Ala Pro Gln Met Asn Ile
 500 505 510
 Asn Ile Ala Thr Trp Gly Arg Leu Val Arg Arg Ala Ile Pro Thr Val
 515 520 525
 Asn His Ser Gly Thr Phe Ser Pro Gln Ala Pro Val Pro Thr Thr Val
 530 535 540
 Pro Val Val Asp Val Arg Ile Pro Gln Leu Ala Pro Pro Ala Ser Asp
 545 550 555 560
 Ser Thr Val Thr Lys Leu Asp Phe Asp Leu Glu Pro Glu Pro Pro Pro
 565 570 575
 Ala Pro Pro Arg Ala Ser Ser Leu Gly Glu Ile Asp Glu Ser Ser Glu
 580 585 590
 Leu Arg Val Leu Asp Ile Pro Gly Gln Ala Ser His Phe Lys Pro Cys
 595 600 605
 Ile Ile Pro Leu His
 610

<210> 167
 <211> 133
 <212> PRT
 <213> Homo sapiens

<400> 167

Met Val Ser Ser Gln Lys Leu Glu Lys Pro Ile Glu Met Gly Ser Ser
 1 5 10 15

Glu Pro Leu Pro Ile Ala Asp Gly Asp Arg Arg Arg Lys Lys Lys Arg
20 25 30

Arg Gly Arg Ala Thr Asp Ser Leu Pro Gly Lys Phe Glu Asp Met Tyr
35 40 45

Lys Leu Thr Ser Glu Leu Leu Gly Glu Gly Ala Tyr Ala Lys Val Gln
50 55 60

Gly Ala Val Ser Leu Gln Asn Gly Lys Glu Tyr Ala Val Lys Ile Ile
65 70 75 80

Glu Lys Gln Ala Gly His Ser Arg Ser Arg Val Phe Arg Glu Val Glu
85 90 95

Thr Leu Tyr Gln Cys Gln Gly Asn Lys Asn Ile Leu Glu Leu Ile Glu
100 105 110

Phe Phe Glu Asp Asp Thr Arg Phe Tyr Leu Val Phe Glu Lys Leu Gln
115 120 125

Gly Gly Thr Tyr Arg
130

<210> 168

<211> 153

<212> PRT

<213> Homo sapiens

<400> 168

Met Leu Gln Val Gly Val Leu Arg Asp Arg Ser Pro Ala Gly Ala Ser
1 5 10 15

Glu Gly Phe His Val Arg Gly Arg Trp Arg Thr Glu Asp Cys His Leu
20 25 30

Arg Thr Lys Ala Ile Glu Thr Leu Arg Val Ala Gly Arg His Gln Leu
35 40 45

Pro Asp Arg Ser Phe Ile Ser Phe Gly Ile Ser Ser Leu Gln Met Val
50 55 60

Ser Ser Gln Lys Leu Glu Lys Pro Ile Glu Met Gly Ser Ser Glu Pro
65 70 75 80

Leu Pro Ile Ala Asp Gly Asp Arg Arg Arg Lys Lys Lys Arg Arg Gly
85 90 95

Arg Ala Thr Asp Ser Leu Pro Gly Lys Phe Glu Asp Met Tyr Lys Leu
100 105 110

Thr Ser Glu Leu Leu Gly Glu Gly Ala Tyr Ala Lys Val Gln Gly Ala
115 120 125

Val Ser Leu Gln Asn Gly Lys Glu Tyr Ala Val Lys Val Ser Val Ser

130

135

140

Ala Glu Cys Gln Ala Leu Leu Cys Lys

145

150

<210> 169

<211> 231

<212> PRT

<213> Homo sapiens

<400> 169

Met Gly Ser Gly Met Lys Leu Asn Asn Ser Cys Thr Pro Ile Thr Thr
1 5 10 15

Pro Glu Leu Thr Thr Pro Cys Gly Ser Ala Glu Tyr Met Ala Pro Glu
20 25 30

Val Val Glu Val Phe Thr Asp Gln Ala Thr Phe Tyr Asp Lys Arg Cys
35 40 45

Asp Leu Trp Ser Leu Gly Val Val Leu Tyr Ile Met Leu Ser Gly Tyr
50 55 60

Pro Pro Phe Val Gly His Cys Gly Ala Asp Cys Gly Trp Asp Arg Gly
65 70 75 80

Glu Val Cys Arg Val Cys Gln Asn Lys Leu Phe Glu Ser Ile Gln Glu
85 90 95

Gly Lys Tyr Glu Phe Pro Asp Lys Asp Trp Ala His Ile Ser Ser Glu
100 105 110

Ala Lys Asp Leu Ile Ser Lys Leu Leu Val Arg Asp Ala Lys Gln Arg
115 120 125

Leu Ser Ala Ala Gln Val Leu Gln His Pro Trp Val Gln Gly Gln Ala
130 135 140

Pro Glu Lys Gly Leu Pro Thr Pro Gln Val Leu Gln Arg Asn Ser Ser
145 150 155 160

Thr Met Asp Leu Thr Leu Phe Ala Ala Glu Ala Ile Ala Leu Asn Arg
165 170 175

Gln Leu Ser Gln His Glu Glu Asn Glu Leu Ala Glu Glu Pro Glu Ala
180 185 190

Leu Ala Asp Gly Leu Cys Ser Met Lys Leu Ser Pro Pro Cys Lys Ser
195 200 205

Arg Leu Ala Arg Arg Arg Ala Leu Ala Gln Ala Gly Arg Gly Glu Asp
210 215 220

Arg Ser Pro Pro Thr Ala Leu
225 230

<210> 170
<211> 146
<212> PRT
<213> Homo sapiens

<400> 170

Met Arg Lys Gly Val Leu Lys Asp Pro Glu Ile Ala Asp Leu Phe Tyr
1 5 10 15
Lys Asp Asp Pro Glu Glu Leu Phe Ile Gly Leu His Glu Ile Gly His
20 25 30
Gly Ser Phe Gly Ala Val Tyr Phe Ala Thr Asn Ala His Thr Ser Glu
35 40 45
Val Val Ala Ile Lys Lys Met Ser Tyr Ser Gly Lys Gln Thr His Glu
50 55 60
Lys Trp Gln Asp Ile Leu Lys Glu Val Lys Phe Leu Arg Gln Leu Lys
65 70 75 80
His Pro Asn Thr Ile Glu Tyr Lys Gly Cys Tyr Leu Lys Glu His Thr
85 90 95
Ala Trp Leu Val Met Glu Tyr Cys Leu Gly Ser Ala Ser Asp Leu Leu
100 105 110
Glu Val His Lys Lys Pro Leu Gln Glu Val Glu Ile Ala Ala Ile Thr
115 120 125
His Gly Ala Leu His Gly Leu Ala Tyr Leu His Ser His Ala Leu Ile
130 135 140
His Arg
145

<210> 171
<211> 123
<212> PRT
<213> Homo sapiens

<400> 171

Met Met Glu Glu Leu His Ser Leu Asp Pro Arg Arg Gln Glu Leu Leu
1 5 10 15
Glu Ala Arg Phe Thr Gly Val Gly Val Ser Lys Gly Pro Leu Asn Ser
20 25 30
Glu Ser Ser Asn Gln Ser Leu Cys Ser Val Gly Ser Leu Ser Asp Lys
35 40 45
Glu Val Glu Thr Pro Glu Lys Lys Gln Asn Asp Gln Arg Asn Arg Lys
50 55 60
Arg Lys Ala Glu Pro Tyr Glu Thr Ser Gln Gly Lys Gly Thr Pro Arg

65		70		75		80
Gly His Lys Ile Ser Asp Tyr Phe Glu Thr Ala Pro Leu Trp Phe Arg						
	85		90		95	
Trp Gln Cys Cys Lys Gly Gly Asn Arg Gly Ala Val Cys Ser Ala Asn						
	100		105		110	
Pro His Val Ser Asp Ala Ser Lys Thr Ser Ala						
	115		120			
<210>	172					
<211>	478					
<212>	PRT					
<213>	Homo sapiens					
<400>	172					
Met Val Gly Ile Lys Glu Arg Pro Ser Ser Asn Leu Pro Cys Pro Pro						
1	5		10		15	
Leu Pro Pro Gln Thr Gln Ala Cys Pro Pro Leu Ser Trp Pro Gln Arg						
	20		25		30	
Leu Asp Ile Leu Leu Gly Thr Ala Arg Ala Ile Gln Phe Leu His Gln						
	35		40		45	
Asp Ser Pro Ser Leu Ile His Gly Asp Ile Lys Ser Ser Asn Val Leu						
	50		55		60	
Leu Asp Glu Arg Leu Thr Pro Lys Leu Gly Asp Phe Gly Leu Ala Arg						
65	70		75		80	
Phe Ser Arg Phe Ala Gly Ser Ser Pro Ser Gln Ser Ser Met Val Ala						
	85		90		95	
Arg Thr Gln Thr Val Arg Gly Thr Leu Ala Tyr Leu Pro Glu Glu Tyr						
	100		105		110	
Ile Lys Thr Gly Arg Leu Ala Val Asp Thr Asp Thr Phe Ser Phe Gly						
	115		120		125	
Val Val Val Leu Glu Thr Leu Ala Gly Gln Arg Ala Val Lys Thr His						
	130		135		140	
Gly Ala Arg Thr Lys Tyr Leu Lys Asp Leu Val Glu Glu Glu Ala Glu						
145	150		155		160	
Glu Ala Gly Val Ala Leu Arg Ser Thr Gln Ser Thr Leu Gln Ala Gly						
	165		170		175	
Leu Ala Ala Asp Ala Trp Ala Ala Pro Ile Ala Met Gln Ile Tyr Lys						
	180		185		190	
Lys His Leu Asp Pro Arg Pro Gly Pro Cys His Leu Ser Trp Ala Trp						
	195		200		205	

Ala Trp Ala Ser Trp Pro Ala Ala Ala Cys Thr Ala Gly Pro Lys Gly
 210 215 220
 Arg Pro Pro Met Thr Gln Val Tyr Glu Arg Leu Glu Lys Leu Gln Ala
 225 230 235 240
 Val Val Ala Gly Val Pro Gly His Leu Glu Ala Ala Ser Cys Ile Pro
 245 250 255
 Phe Pro Gln Glu Asn Ser Tyr Val Ser Ser Thr Gly Arg Ala His Ser
 260 265 270
 Gly Ala Ala Pro Trp Gln Pro Leu Ala Ala Pro Ser Gly Ala Ser Ala
 275 280 285
 Gln Ala Ala Glu Gln Leu Gln Arg Gly Pro Asn Gln Pro Val Glu Ser
 290 295 300
 Asp Glu Ser Leu Gly Gly Leu Ser Ala Ala Leu Arg Ser Trp His Leu
 305 310 315 320
 Thr Pro Ser Cys Pro Leu Asp Pro Ala Pro Leu Arg Glu Ala Gly Cys
 325 330 335
 Pro Gln Gly Asp Thr Ala Gly Glu Ser Ser Trp Gly Ser Gly Pro Gly
 340 345 350
 Ser Arg Pro Thr Ala Val Glu Gly Leu Ala Leu Gly Ser Ser Ala Ser
 355 360 365
 Ser Ser Ser Glu Pro Pro Gln Ile Ile Ile Asn Pro Ala Arg Gln Lys
 370 375 380
 Met Val Gln Lys Leu Ala Leu Tyr Glu Asp Gly Ala Leu Asp Ser Leu
 385 390 395 400
 Gln Leu Leu Ser Ser Ser Ser Leu Pro Gly Leu Gly Leu Glu Gln Asp
 405 410 415
 Arg Gln Gly Pro Lys Lys Val Met Asn Phe Arg Ala Asp Val Phe Thr
 420 425 430
 Trp Ala Asp Pro Pro Asn Pro Glu Val Lys Val Leu Met Val Arg Ser
 435 440 445
 Ser His Gly Ala Arg Val Leu Ser Thr Leu Pro Ala Val Gly Val Gly
 450 455 460
 Ala His Ala Arg Trp Gly Glu Lys Glu Val Ala Leu Leu Phe
 465 470 475

<210> 173
 <211> 344
 <212> PRT
 <213> Homo sapiens

<400> 173

Met Ala Gly Gly Pro Gly Pro Gly Glu Pro Ala Ala Pro Gly Ala Gln
 1 5 10 15
 His Phe Leu Tyr Glu Val Pro Pro Trp Val Met Cys Arg Phe Tyr Lys
 20 25 30
 Val Met Asp Ala Leu Glu Pro Ala Asp Trp Cys Gln Phe Ala Ala Leu
 35 40 45
 Ile Val Arg Asp Gln Thr Glu Leu Arg Leu Cys Glu Arg Ser Gly Gln
 50 55 60
 Arg Thr Ala Ser Val Leu Trp Pro Trp Ile Asn Arg Asn Ala Arg Val
 65 70 75 80
 Ala Asp Leu Val His Ile Leu Thr His Leu Gln Leu Leu Arg Ala Arg
 85 90 95
 Asp Ile Ile Thr Ala Trp His Pro Pro Ala Pro Leu Pro Ser Pro Gly
 100 105 110
 Thr Thr Ala Pro Arg Pro Ser Ser Ile Pro Ala Pro Ala Glu Ala Glu
 115 120 125
 Ala Trp Ser Pro Arg Lys Leu Pro Ser Ser Ala Ser Thr Phe Leu Ser
 130 135 140
 Pro Ala Phe Pro Gly Ser Gln Thr His Ser Gly Pro Glu Leu Gly Leu
 145 150 155 160
 Val Pro Ser Pro Ala Ser Leu Trp Pro Pro Pro Pro Ser Pro Ala Pro
 165 170 175
 Ser Ser Thr Lys Pro Gly Pro Glu Ser Ser Val Ser Leu Leu Gln Gly
 180 185 190
 Ala Arg Pro Ser Pro Phe Cys Trp Pro Leu Cys Glu Ile Ser Arg Gly
 195 200 205
 Thr His Asn Phe Ser Glu Glu Leu Lys Ile Gly Glu Gly Gly Phe Gly
 210 215 220
 Cys Val Tyr Arg Ala Val Met Arg Asn Thr Val Tyr Ala Val Lys Arg
 225 230 235 240
 Leu Lys Glu Asn Ala Asp Leu Glu Trp Thr Ala Val Lys Gln Ser Phe
 245 250 255
 Leu Thr Glu Val Glu Gln Leu Ser Arg Phe Arg His Pro Asn Ile Val
 260 265 270
 Asp Phe Ala Gly Tyr Cys Ala Gln Asn Gly Phe Tyr Cys Leu Val Tyr
 275 280 285
 Gly Phe Leu Pro Asn Gly Ser Leu Glu Asp Arg Leu His Cys Gln Thr
 290 295 300

Gln Ala Cys Pro Pro Leu Ser Trp Pro Gln Arg Leu Asp Ile Leu Leu
305 310 315 320

Gly Thr Ala Arg Ala Ser Gln Val Ser Cys Asn Arg Val Ser Ser Cys
325 330 335

Val Ser Lys Ser Ser Pro Gly Leu
340

<210> 174

<211> 336

<212> PRT

<213> Homo sapiens

<400> 174

Met Phe Thr Glu Glu Asp Val Lys Phe Tyr Leu Ala Glu Leu Ala Leu
1 5 10 15

Ala Leu Asp His Leu His Ser Leu Gly Ile Ile Tyr Arg Asp Leu Lys
20 25 30

Pro Glu Asn Ile Leu Leu Asp Glu Glu Gly His Ile Lys Leu Thr Asp
35 40 45

Phe Gly Leu Ser Lys Glu Ser Ile Asp His Glu Lys Lys Ala Tyr Ser
50 55 60

Phe Cys Gly Thr Val Glu Tyr Met Ala Pro Glu Val Val Asn Arg Arg
65 70 75 80

Gly His Thr Gln Ser Ala Asp Trp Trp Ser Phe Gly Val Leu Met Phe
85 90 95

Glu Met Leu Thr Gly Thr Leu Pro Phe Gln Gly Lys Asp Arg Lys Glu
100 105 110

Thr Met Thr Met Ile Leu Lys Ala Lys Leu Gly Met Pro Gln Phe Leu
115 120 125

Ser Pro Glu Ala Gln Ser Leu Leu Arg Met Leu Phe Lys Arg Asn Pro
130 135 140

Ala Asn Arg Leu Gly Ala Gly Pro Asp Gly Val Glu Glu Ile Lys Arg
145 150 155 160

His Ser Phe Phe Ser Thr Ile Asp Trp Asn Lys Leu Tyr Arg Arg Glu
165 170 175

Ile His Pro Pro Phe Lys Pro Ala Thr Gly Arg Pro Glu Asp Thr Phe
180 185 190

Tyr Phe Asp Pro Glu Phe Thr Ala Lys Thr Pro Lys Asp Ser Pro Gly
195 200 205

Ile Pro Pro Ser Ala Asn Ala His Gln Leu Phe Arg Gly Phe Ser Phe

210 215 220
 Val Ala Ile Thr Ser Asp Asp Glu Ser Gln Ala Met Gln Thr Val Gly
 225 230 235 240
 Val His Ser Ile Val Gln Gln Leu His Arg Asn Ser Ile Gln Phe Thr
 245 250 255
 Asp Gly Tyr Glu Val Lys Glu Asp Ile Gly Val Gly Ser Tyr Ser Val
 260 265 270
 Cys Lys Arg Cys Ile His Lys Ala Thr Asn Met Glu Phe Ala Val Lys
 275 280 285
 Val Asn Phe Phe Tyr Leu Lys Cys Asn Ser Tyr Ser Ser Cys Ser Cys
 290 295 300
 Met Ser Val Pro Val Lys Asn Tyr Thr Pro Leu Val Val Lys Ser Ala
 305 310 315 320
 Phe Cys Tyr Lys Lys Val Lys Tyr Leu Ala Ser Asp Leu Gln Arg Ser
 325 330 335

 <210> 175
 <211> 198
 <212> PRT
 <213> Homo sapiens

 <400> 175

 Met Pro Leu Ala Gln Leu Ala Asp Pro Trp Gln Lys Met Ala Val Glu
 1 5 10 15
 Ser Pro Ser Asp Ser Ala Glu Asn Gly Gln Gln Ile Met Asp Glu Pro
 20 25 30
 Met Gly Glu Glu Glu Ile Asn Pro Gln Thr Glu Glu Val Ser Ile Lys
 35 40 45
 Glu Ile Ala Ile Thr His His Val Lys Glu Gly His Glu Lys Ala Asp
 50 55 60
 Pro Ser Gln Phe Glu Leu Leu Lys Val Leu Gly Gln Gly Ser Phe Gly
 65 70 75 80
 Lys Val Phe Leu Val Lys Lys Ile Ser Gly Ser Asp Ala Arg Gln Leu
 85 90 95
 Tyr Ala Met Lys Val Leu Lys Lys Ala Thr Leu Lys Val Arg Asp Arg
 100 105 110
 Val Arg Thr Lys Met Glu Arg Asp Ile Leu Val Glu Val Asn His Pro
 115 120 125
 Phe Ile Val Lys Leu His Tyr Ala Phe Gln Thr Glu Gly Lys Leu Tyr
 130 135 140

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Leu Ile Leu Asp Phe Leu Arg Gly Gly Asp Leu Phe Thr Arg Leu Ser
145 150 155 160

Lys Glu Val Met Phe Thr Glu Glu Asp Val Lys Phe Tyr Leu Ala Glu
165 170 175

Leu Ala Leu Ala Leu Asp His Leu His Ser Leu Gly Ile Ile Tyr Arg
180 185 190

Asp Leu Lys Pro Glu Lys
195

<210> 176

<211> 489

<212> PRT

<213> Homo sapiens

<400> 176

Met Ser Thr Glu Ala Asp Glu Gly Ile Thr Phe Ser Val Pro Pro Phe
1 5 10 15

Ala Pro Ser Gly Phe Cys Thr Ile Pro Glu Gly Gly Ile Cys Arg Arg
20 25 30

Gly Gly Ala Ala Ala Val Gly Glu Gly Glu Glu His Gln Leu Pro Pro
35 40 45

Pro Pro Pro Gly Ser Phe Trp Asn Val Glu Ser Ala Ala Ala Pro Gly
50 55 60

Ile Gly Cys Pro Ala Ala Thr Ser Ser Ser Ser Ala Thr Arg Gly Arg
65 70 75 80

Gly Ser Ser Val Gly Gly Gly Ser Arg Arg Thr Thr Val Ala Tyr Val
85 90 95

Ile Asn Glu Ala Ser Gln Gly Gln Leu Val Val Ala Glu Ser Glu Ala
100 105 110

Leu Gln Ser Leu Arg Glu Ala Cys Glu Thr Val Gly Ala Thr Leu Glu
115 120 125

Thr Leu His Phe Gly Lys Leu Asp Phe Gly Glu Thr Thr Val Leu Asp
130 135 140

Arg Phe Tyr Asn Ala Asp Ile Ala Val Val Glu Met Ser Asp Ala Phe
145 150 155 160

Arg Gln Pro Ser Leu Phe Tyr His Leu Gly Val Arg Glu Ser Phe Ser
165 170 175

Met Ala Asn Asn Ile Ile Leu Tyr Cys Asp Thr Asn Ser Asp Ser Leu
180 185 190

Gln Ser Leu Lys Glu Ile Ile Cys Gln Lys Asn Thr Met Cys Thr Gly
195 200 205

Asn Tyr Thr Phe Val Pro Tyr Met Ile Thr Pro His Asn Lys Val Tyr
 210 215 220
 Cys Cys Asp Ser Ser Phe Met Lys Gly Leu Thr Glu Leu Met Gln Pro
 225 230 235 240
 Asn Phe Glu Leu Leu Leu Gly Pro Ile Cys Leu Pro Leu Val Asp Arg
 245 250 255
 Phe Ile Gln Leu Leu Lys Val Ala Gln Ala Ser Ser Ser Gln Tyr Phe
 260 265 270
 Arg Glu Ser Ile Leu Asn Asp Ile Arg Lys Ala Arg Asn Leu Tyr Thr
 275 280 285
 Gly Lys Glu Leu Ala Ala Glu Leu Ala Arg Ile Arg Gln Arg Val Asp
 290 295 300
 Asn Ile Glu Val Leu Thr Ala Asp Ile Val Ile Asn Leu Leu Leu Ser
 305 310 315 320
 Tyr Arg Asp Ile Gln Asp Tyr Asp Ser Ile Val Lys Leu Val Glu Thr
 325 330 335
 Leu Glu Lys Leu Pro Thr Phe Asp Leu Ala Ser His His His Val Lys
 340 345 350
 Phe His Tyr Ala Phe Ala Leu Asn Arg Arg Asn Leu Pro Gly Asp Arg
 355 360 365
 Ala Lys Ala Leu Asp Ile Met Ile Pro Met Val Gln Ser Glu Gly Gln
 370 375 380
 Val Ala Ser Asp Met Tyr Cys Leu Val Gly Arg Ile Tyr Lys Asp Met
 385 390 395 400
 Phe Leu Asp Ser Asn Phe Thr Asp Thr Glu Ser Arg Asp His Gly Ala
 405 410 415
 Ser Trp Phe Lys Lys Ala Phe Glu Ser Glu Pro Thr Leu Gln Ser Gly
 420 425 430
 Ile Asn Tyr Ala Val Leu Leu Leu Ala Ala Gly His Gln Phe Glu Ser
 435 440 445
 Ser Phe Glu Leu Arg Lys Val Gly Asn Tyr Asn Leu Asn Phe Tyr Met
 450 455 460
 Glu Ile Lys Lys Leu Gly Pro Asn Leu Val Gln Arg Arg Ile Ser Ala
 465 470 475 480
 Asp Ser Asp Gly Ser Pro Gly Phe Val
 485

<210> 177

<211> 105

<212> PRT
<213> Homo sapiens

<400> 177

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Met Arg Glu Phe Glu Val Leu Lys Lys Leu Asn His Lys Asn Ile Val
1          5          10          15

Lys Leu Phe Ala Ile Glu Glu Glu Thr Thr Thr Arg His Lys Val Leu
          20          25          30

Ile Met Glu Phe Cys Pro Cys Gly Ser Leu Tyr Thr Val Leu Glu Glu
          35          40          45

Pro Ser Asn Ala Tyr Gly Leu Pro Glu Ser Glu Phe Leu Ile Val Leu
          50          55          60

Arg Asp Val Val Gly Gly Met Asn His Leu Arg Glu Asn Gly Ile Val
65          70          75          80

His Arg Asp Ile Lys Pro Gly Asn Ile Met Arg Ala Leu Tyr His Ser
          85          90          95

Leu Val Asp Asp Ser Phe His Pro Pro
          100          105
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<210> 178
<211> 413
<212> PRT
<213> Homo sapiens

<220>
<221> -
<222> (1)..(413)
<223> "XAA" can be any amino acid

<400> 178

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Met Tyr Cys Phe Gly Arg Lys Xaa Tyr Ile Ser Thr Arg Pro Cys Phe
1          5          10          15

Pro Asn Lys Thr Cys Gln Lys Met Leu Ile Ile Leu Thr Ser Ala Leu
          20          25          30

Gln Ile Ala His Arg Cys Ile Cys Arg Ile Leu Leu Gly Ser Arg Val
          35          40          45

Leu Ala Ala Lys Ala Ser Gly Asn Cys Thr Leu Asn Ser Glu Asp Phe
          50          55          60

Ile Phe Asn Ile Gly Ser Ala Ala Tyr Asp Ala Val Leu Asp Arg Asn
65          70          75          80

Val Ala Ile Lys Lys Leu Ser Arg Pro Phe Gln Asn Gln Thr His Ala
          85          90          95
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Lys Arg Ala Tyr Arg Glu Leu Val Leu Met Lys Cys Val Asn His Lys
 100 105 110
 Asn Ile Ile Ser Leu Leu Asn Val Phe Thr Pro Gln Lys Thr Leu Glu
 115 120 125
 Glu Phe Gln Asp Val Tyr Leu Val Met Glu Leu Met Asp Ala Asn Leu
 130 135 140
 Cys Gln Val Ile Gln Met Glu Leu Asp His Glu Arg Met Ser Tyr Leu
 145 150 155 160
 Leu Tyr Gln Met Leu Cys Gly Ile Lys His Leu His Ser Ala Gly Ile
 165 170 175
 Ile His Arg Asp Leu Lys Pro Ser Asn Ile Val Val Lys Ser Asp Cys
 180 185 190
 Thr Leu Lys Ile Leu Asp Phe Gly Leu Ala Arg Thr Ala Gly Thr Ser
 195 200 205
 Phe Met Met Thr Pro Tyr Val Val Thr Arg Tyr Tyr Arg Ala Pro Glu
 210 215 220
 Val Ile Leu Gly Met Gly Tyr Lys Glu Asn Val Asp Ile Trp Ser Val
 225 230 235 240
 Gly Cys Ile Met Gly Glu Met Val Arg His Lys Ile Leu Phe Pro Gly
 245 250 255
 Arg Asp Tyr Ile Asp Gln Trp Asn Lys Val Ile Glu Gln Leu Gly Thr
 260 265 270
 Pro Cys Pro Glu Phe Met Lys Lys Leu Gln Pro Thr Val Arg Asn Tyr
 275 280 285
 Val Glu Asn Arg Pro Lys Tyr Ala Gly Leu Thr Phe Pro Lys Leu Phe
 290 295 300
 Pro Asp Ser Leu Phe Pro Ala Asp Ser Glu His Asn Lys Leu Lys Ala
 305 310 315 320
 Ser Gln Ala Arg Asp Leu Leu Ser Lys Met Leu Val Ile Asp Pro Ala
 325 330 335
 Lys Arg Ile Ser Val Asp Asp Ala Leu Gln His Pro Tyr Ile Asn Val
 340 345 350
 Trp Tyr Asp Pro Ala Glu Val Glu Ala Pro Pro Pro Gln Ile Tyr Asp
 355 360 365
 Lys Gln Leu Asp Glu Arg Glu His Thr Ile Glu Glu Trp Lys Glu Leu
 370 375 380
 Ile Tyr Lys Glu Val Met Asn Ser Glu Glu Lys Thr Lys Asn Gly Val
 385 390 395 400

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Val Lys Gly Gln Pro Ser Pro Ser Ala Gln Val Gln Gln
405 410

<210> 179
<211> 108
<212> PRT
<213> Homo sapiens

<400> 179

Met Ser Lys Ser Lys Val Asp Asn Gln Phe Tyr Ser Val Glu Val Gly
1 5 10 15

Asp Ser Thr Phe Thr Val Leu Lys Arg Tyr Gln Asn Leu Lys Pro Ile
20 25 30

Gly Ser Gly Ala Gln Gly Ile Val Cys Ala Ala Tyr Asp Ala Val Leu
35 40 45

Asp Arg Asn Val Ala Ile Lys Lys Leu Ser Arg Pro Phe Gln Asn Gln
50 55 60

Thr His Ala Lys Arg Ala Tyr Arg Glu Leu Val Leu Met Lys Cys Val
65 70 75 80

Asn His Lys Asn Val Ser Phe Val Ile Phe Lys Leu Leu Ala Val Gly
85 90 95

Val Cys Lys Ile Gly Lys Arg Lys Cys Val Cys Thr
100 105

<210> 180
<211> 336
<212> PRT
<213> Homo sapiens

<400> 180

Met Ala Met Thr Gly Ser Thr Pro Cys Ser Ser Met Ser Asn His Thr
1 5 10 15

Lys Glu Arg Val Thr Met Thr Lys Val Thr Leu Glu Asn Phe Tyr Ser
20 25 30

Asn Leu Ile Ala Gln His Glu Glu Arg Glu Met Arg Gln Lys Lys Leu
35 40 45

Glu Lys Val Met Glu Glu Glu Gly Leu Lys Asp Glu Glu Lys Arg Leu
50 55 60

Arg Arg Ser Ala His Ala Arg Lys Glu Thr Glu Phe Leu Arg Leu Lys
65 70 75 80

Arg Thr Arg Leu Gly Leu Glu Asp Phe Glu Ser Leu Lys Val Ile Gly
85 90 95

Arg Gly Ala Phe Gly Glu Val Arg Leu Val Gln Lys Lys Asp Thr Gly

100					105					110						
His	Val	Tyr	Ala	Met	Lys	Ile	Leu	Arg	Lys	Ala	Asp	Met	Leu	Glu	Lys	
115					120					125						
Glu	Gln	Val	Gly	His	Ile	Arg	Ala	Glu	Arg	Asp	Ile	Leu	Val	Glu	Ala	
130					135					140						
Asp	Ser	Leu	Trp	Val	Val	Lys	Met	Phe	Tyr	Ser	Phe	Gln	Asp	Lys	Leu	
145					150					155					160	
Asn	Leu	Tyr	Leu	Ile	Met	Glu	Phe	Leu	Pro	Gly	Gly	Asp	Met	Met	Thr	
165					170					175						
Leu	Leu	Met	Lys	Lys	Asp	Thr	Leu	Thr	Glu	Glu	Glu	Thr	Gln	Phe	Tyr	
180					185					190						
Ile	Ala	Glu	Thr	Val	Leu	Ala	Ile	Asp	Ser	Ile	His	Gln	Leu	Gly	Phe	
195					200					205						
Ile	His	Arg	Asp	Ile	Lys	Pro	Asp	Asn	Leu	Leu	Leu	Asp	Ser	Lys	Gly	
210					215					220						
His	Val	Lys	Leu	Ser	Asp	Phe	Gly	Leu	Cys	Thr	Gly	Leu	Lys	Lys	Ala	
225					230					235					240	
His	Arg	Thr	Glu	Phe	Tyr	Arg	Asn	Leu	Asn	His	Ser	Leu	Pro	Ser	Asp	
245					250					255						
Phe	Thr	Phe	Gln	Asn	Met	Asn	Ser	Lys	Arg	Lys	Ala	Glu	Thr	Trp	Lys	
260					265					270						
Arg	Asn	Arg	Arg	Gln	Leu	Ala	Phe	Ser	Thr	Val	Gly	Thr	Pro	Asp	Tyr	
275					280					285						
Ile	Ala	Pro	Glu	Val	Phe	Met	Gln	Thr	Gly	Tyr	Asn	Lys	Leu	Cys	Asp	
290					295					300						
Trp	Trp	Ser	Leu	Gly	Val	Ile	Met	Tyr	Glu	Met	Leu	Ile	Gly	Lys	Leu	
305					310					315					320	
His	Gly	Phe	Arg	Gly	Leu	Phe	Leu	Cys	Ile	His	Asp	Arg	Leu	Leu	His	
325					330					335						

<210> 181

<211> 415

<212> PRT

<213> Homo sapiens

<220>

<221> -

<222> (1)..(415)

<223> "XAA " can be any amino acid

<400> 181

Xaa Arg His Glu Ser Ala Arg Ala Ala Arg Val Ser Gly Gly Ser Met
 1 5 10 15
 Leu Asp Ile Ile Lys Tyr Ile Val Asn Arg Gly Glu His Lys Asn Gly
 20 25 30
 Val Leu Glu Glu Ala Ile Ile Ala Thr Ile Leu Lys Glu Val Leu Glu
 35 40 45
 Gly Leu Asp Tyr Leu His Arg Asn Gly Gln Ile His Arg Asp Leu Lys
 50 55 60
 Ala Gly Asn Ile Leu Leu Gly Glu Asp Gly Ser Val Gln Ile Ala Asp
 65 70 75 80
 Phe Gly Val Ser Ala Phe Leu Ala Thr Gly Gly Asp Val Thr Arg Asn
 85 90 95
 Lys Val Arg Lys Thr Phe Val Gly Thr Pro Cys Trp Met Ala Pro Glu
 100 105 110
 Val Met Glu Gln Val Arg Gly Tyr Asp Phe Lys Ala Asp Met Trp Ser
 115 120 125
 Phe Gly Ile Thr Ala Ile Glu Leu Ala Thr Gly Ala Ala Pro Tyr His
 130 135 140
 Lys Tyr Pro Pro Met Lys Val Leu Met Leu Thr Leu Gln Asn Asp Pro
 145 150 155 160
 Pro Thr Leu Glu Thr Gly Val Glu Asp Lys Glu Met Met Lys Lys Tyr
 165 170 175
 Gly Lys Ser Phe Arg Lys Leu Leu Ser Leu Cys Leu Gln Lys Asp Pro
 180 185 190
 Ser Lys Arg Pro Thr Ala Ala Glu Leu Leu Lys Cys Lys Phe Phe Gln
 195 200 205
 Lys Ala Lys Asn Arg Glu Tyr Leu Ile Glu Lys Leu Leu Thr Arg Thr
 210 215 220
 Pro Asp Ile Ala Gln Arg Ala Lys Lys Val Arg Arg Val Pro Gly Ser
 225 230 235 240
 Ser Gly His Leu His Lys Thr Glu Asp Gly Asp Trp Glu Trp Ser Asp
 245 250 255
 Asp Glu Met Asp Glu Lys Ser Glu Glu Gly Lys Ala Ala Phe Ser Gln
 260 265 270
 Glu Lys Ser Arg Arg Val Lys Glu Glu Asn Pro Glu Ile Ala Val Ser
 275 280 285
 Ala Ser Thr Ile Pro Glu Gln Ile Gln Ser Leu Ser Val His Asp Ser
 290 295 300

Gln Gly Pro Pro Asn Ala Asn Glu Asp Tyr Arg Glu Ala Ser Ser Cys
305 310 315 320

Ala Val Asn Leu Val Leu Arg Leu Arg Asn Ser Arg Lys Glu Leu Asn
325 330 335

Asp Ile Arg Phe Glu Phe Thr Pro Gly Arg Asp Thr Ala Asp Gly Val
340 345 350

Ser Gln Glu Leu Phe Ser Ala Gly Leu Val Asp Gly His Asp Val Val
355 360 365

Ile Val Ala Ala Asn Leu Gln Lys Ile Val Asp Asp Pro Lys Ala Leu
370 375 380

Lys Thr Leu Thr Phe Lys Leu Ala Ser Gly Cys Asp Gly Ser Glu Ile
385 390 395 400

Pro Asp Glu Val Lys Leu Ile Gly Phe Ala Gln Leu Ser Val Ser
405 410 415

<210> 182

<211> 409

<212> PRT

<213> Homo sapiens

<220>

<221> -

<222> (1)..(409)

<223> "Xaa" can be any amino acid

<400> 182

Xaa Arg His Glu Ser Ala Arg Ala Ala Arg Val Ser Gly Gly Ser Met
1 5 10 15

Leu Asp Ile Ile Lys Tyr Ile Val Asn Arg Gly Glu His Lys Asn Gly
20 25 30

Val Leu Glu Glu Ala Ile Ile Ala Thr Ile Leu Lys Glu Val Leu Glu
35 40 45

Gly Leu Asp Tyr Leu His Arg Asn Gly Gln Ile His Arg Asp Leu Lys
50 55 60

Ala Gly Asn Ile Leu Leu Gly Glu Asp Gly Ser Val Gln Ile Ala Asp
65 70 75 80

Phe Gly Val Ser Ala Phe Leu Ala Thr Gly Gly Asp Val Thr Arg Asn
85 90 95

Lys Val Arg Lys Thr Phe Val Gly Thr Pro Cys Trp Met Ala Pro Glu
100 105 110

Val Met Glu Gln Val Arg Gly Tyr Asp Phe Lys Ala Asp Met Trp Ser
115 120 125

Phe Gly Ile Thr Ala Ile Glu Leu Ala Thr Gly Ala Ala Pro Tyr His
 130 135 140

Lys Tyr Pro Pro Met Lys Val Leu Met Leu Thr Leu Gln Asn Asp Pro
 145 150 155 160

Pro Thr Leu Glu Thr Gly Val Glu Asp Lys Glu Met Met Lys Lys Tyr
 165 170 175

Gly Lys Ser Phe Arg Lys Leu Leu Ser Leu Cys Leu Gln Lys Asp Pro
 180 185 190

Ser Lys Arg Pro Thr Ala Ala Glu Leu Leu Lys Cys Lys Phe Phe Gln
 195 200 205

Lys Ala Lys Asn Arg Glu Tyr Leu Ile Glu Lys Leu Leu Thr Arg Thr
 210 215 220

Pro Asp Ile Ala Gln Arg Ala Lys Lys Val Arg Arg Val Pro Gly Ser
 225 230 235 240

Ser Gly His Leu His Lys Thr Glu Asp Gly Asp Trp Glu Trp Ser Asp
 245 250 255

Asp Glu Met Asp Glu Lys Ser Glu Glu Gly Lys Ala Ala Phe Ser Gln
 260 265 270

Glu Lys Ser Arg Arg Val Lys Glu Glu Asn Pro Glu Ile Ala Val Ser
 275 280 285

Ala Ser Thr Ile Pro Glu Gln Ile Gln Ser Leu Ser Val His Asp Ser
 290 295 300

Gln Gly Pro Pro Asn Ala Asn Glu Asp Tyr Arg Glu Ala Ser Ser Cys
 305 310 315 320

Ala Val Asn Leu Val Leu Arg Leu Arg Asn Ser Arg Lys Glu Leu Asn
 325 330 335

Asp Ile Arg Phe Glu Phe Thr Pro Gly Arg Asp Thr Ala Asp Gly Val
 340 345 350

Ser Gln Glu Leu Phe Ser Ala Gly Leu Val Asp Gly His Asp Val Val
 355 360 365

Ile Val Ala Ala Asn Leu Gln Lys Ile Val Asp Asp Pro Lys Ala Leu
 370 375 380

Lys Thr Leu Thr Phe Lys Leu Asn Gln Phe Leu His Leu Glu Ala Phe
 385 390 395 400

Asp Ser Ala Ala Leu Gly Asn Val Phe
 405